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AGRICULTURE SECTOR DEVELOPMENT STRATEGY

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I. SUMMARY OVERVIEW

Guatemalan agriculture is dualistic, composed of two broad systems: the "commercial" and the "subsistence". Although farms in transition can be identified somewhere between these two categories, most operations fall clearly into one or the other.

The commercial system is usually embodied in large farms which have ready access to productive land, capital and input markets, and infrastructure support. These farms employ the most modern production techniques, given the international state of technical knowledge, international product prices, and relative costs and prices in Guatemala. Most of this system's production is exported, often through international commodity agreements. Product quality tends to be uniformly high in order to meet the demanding international market. This system's performance is highly dependent upon market-driven price relationships. It provides two-thirds of gross foreign exchange receipts and 80 percent of total direct taxes.

The subsistence system is comprised primarily of land-poor farmers and landless laborers who produce largely for their own consumption, with any small surpluses sold in nearby markets. Product quality, uniformity, and physical yields are very uneven, but usually poor. Production techniques are generally labor intensive because the opportunity cost of this numerically large group's labor is low, while the price of all other inputs (to them) is high. Access to productive land, broader product markets, and supportive infrastructure is limited to non-existent. The poorest producers in this subsistence system are trapped in an oppressive cycle of low productivity and incomes which is difficult to break. The value of their production is low because the goods they produce are economically inferior and are sold in nearby, low-income markets. Given low productivity, they cannot generate surpluses with which to finance improvements in their input mix or production methods. Additionally, capital and input markets are not available to this group of producers.

Although the conditions for accelerated development in the commercial system would appear to be much more favorable than those for the subsistence system, relatively low world market prices for export commodities, combined with ill-advised economic policies, have reduced the profitability of these key, export-oriented enterprises. Investment in the development and maintenance of productive agricultural lands and application of the latest production technologies have been reduced as well. However, significant increases in agricultural GDP over the

short run can be achieved principally through a more favorable investment environment for this commercial system, while medium- and long-run improvements can be attained through direct assistance to the subsistence system.

It is clear that if Guatemalan agriculture is to play the major role of which it is capable in accelerated economic development of the nation in the short as well as long run, the constraints in both groups must be addressed. The Mission's Agriculture Sector Development Strategy is designed to support a transition of subsistence farms into commercial operations while improving investment, efficiency, and income-generating opportunities for the already commercial enterprises.

In broad terms, the Mission's Agriculture Sector Development Strategy has two qualitative targets. First, it is aimed at a fuller use of existing productive capacity. This will be pursued by securing a stable policy environment and institutional support that will induce the already commercial group to achieve the production and efficiency of which it is presently capable. Establishment of this environment will also benefit the subsistence system since it is a necessary condition for maximum, market competitive production. It is not, however, a sufficient condition for this latter group. Consequently, the second target of the strategy is to expand productive capacity by enabling the populous subsistence group to produce efficiently and competitively through improved knowledge, skills, infrastructure, and resources, thereby permitting it to make the transition to commercial agriculture.

As discussed in Section IV, perhaps the most significant mechanism to transform subsistence agriculture into commercial agriculture is the production of internationally tradeable commodities, or what might be termed "export agriculture". Recent A.I.D experience in Guatemala in crop diversification combined with irrigation supports the view that with proper assistance, subsistence farmers can break the poverty cycle through nontraditional crop production in as little as three years.

Consequently, the theme of the Mission's Agriculture Sector Development Strategy is "commercial export agriculture" with an emphasis on irrigation and crop diversification. This will be undertaken through two mechanisms: (1) agriculture sector-specific policy dialogue and support in conjunction with ESF and PL 480 programs and (2) expanded and new projects using DA and local currency funding. Over the five-year strategy period (1988-1992) a target of $200 million will be invested by A.I.D. to implement this Strategy. This will require a tight integration of DA, ESF and PL 480 funds to achieve maximum impact. These outlays, combined with considerable GOG and

other donor resources, will be required to help transform the agriculture sector and achieve at least the targeted 3.5 percent average annual growth in agricultural GDP beginning in 1990.

With respect to commercial agriculture, public policy and public infrastructure represent the areas of greatest potential payoff. Demand conditions are expected to be generally favorable. Accordingly, the Mission proposes to provide agriculture sector-specific assistance to work with the GOG in developing a propitious environment. The proposed policies to be addressed in this sector assistance (discussed in Section V) will be coordinated with the general ESF macro policy agenda and the PL480 Title I program. By enlisting the Ministry of Agriculture's cooperation and collaboration, a politically important constituency will be gained for appropriate policy reform. Concurrently, local currency funding will increase key budgetary allocations and improve public sector efficiency and services.

With respect to subsistence agriculture, efforts to promote movement into commercial export production will be supported by policy reform and institutional strengthening through the sector-specific assistance. Direct interventions on the supply side will be delivered through the more traditional DA project mode. The Mission will focus its agriculture sector project portfolio over the strategy period, concentrating on irrigated agriculture and crop diversification in the Highlands. These are the areas in which the payoff in terms of employment, incomes, and production is the quickest and most sustainable and in which the Mission has demonstrated capability and experience. The specific interventions related to this focus will be concentrated on:

- o expanding small- and medium-scale irrigation systems to facilitate crop diversification
- o broadening support to agricultural product marketing and processing especially for export
- o developing credit delivery mechanisms for small farmers and farmer groups to finance crop diversification
- o expanding agricultural technology development and transfer especially related to irrigated agriculture
- o improving natural resource management and use (soil conservation, agroforestry, and land distribution) especially related to key Highland watersheds

- expanding rural infrastructure (roads and electrification) related to marketing and agroindustry

Specific interventions in each area, both existing and proposed, are described in Section V. As indicated above, the project portfolio will continue to be focused geographically on the Highlands, where the majority of the subsistence agriculture group (mostly indigenous) is concentrated, although this focus will not prohibit the Mission from taking advantage of targets of opportunity in other areas on a limited and well-defined basis.

The Central American Initiative (CAI) sets a goal of 3.5 percent annual growth in the value of agricultural production for the region as a whole. Guatemala's climate and natural endowments are such that we believe the nation can possibly exceed that performance. Assuming that further major reduction of world market prices of traditional agricultural exports does not occur, that cooperation of the countries of the region proceeds toward more favorable trading relationships, and that the Strategy described in this paper is successfully implemented, it is safe to assume positive growth of export agriculture over the next few years. Also, assuming positive policy reforms and continued success in nontraditional exports, 4.5 percent per year growth in export agriculture is a plausible target for 1988-1990. Given this performance, transition (subsistence to commercial) agriculture would have to grow by just 3 percent (the present population growth rate) in order to reach the overall sector growth target of 3.5 percent. The transition agriculture target should be achievable by 1989. Thus, in 1990 the sector should be firmly onto a 3.5 percent aggregate growth path or, with improved intra-regional trade, possibly exceed that rate. Following 1992 it is expected that the growth rates of the two systems will be about the same and will remain at 3.5 percent for at least a decade.

II. THE RURAL/AGRICULTURAL SETTING IN GUATEMALA

Agriculture has always played a major, if not dominant, role in the Guatemalan economy. Over the past twenty years, however, its role has become less important than economic forces alone would have led one to expect. During the 1970s the policy framework favored the development of import substituting sectors and trade within the Central American Common Market, at the expense of traditional agriculture. In the first half of the 1980s the sector was damaged by the volatile socio-political situation, and by ill-advised

macro-economic policies (e.g., over-valued exchange rate and discriminatory import duties). Low world market prices for Guatemala's principal exports also contributed to the sector's problems in the latter period. Still, the sector's contribution to GDP and employment has been relatively stable, around 25 and 50 percent, respectively. It is clear, therefore, that Guatemalan agriculture is not only important but resilient. Our guestimate is that the agriculture sector's contribution to GDP could exceed the target of 3.5 percent annual growth within five years if the policy and project interventions described in this paper are fully implemented.

In this section a descriptive overview of the sector is presented to provide a better understanding of the tasks at hand.

A. Agriculture in the Economy

The agriculture sector long has been dominant in the slowly-developing Guatemalan economy and continues to be a critical sector for national economic progress. Even after the relatively rapid nonagricultural growth of the 1970s, agriculture still accounts for at least one-fourth of the country's Gross Domestic Product (GDP). It assumes even greater importance in other aspects of the economy: almost six of every ten people in the workforce are employed in the sector and agricultural exports generate two-thirds of the country's total foreign exchange earnings. (A more detailed description of Guatemalan agriculture and the rural economy is presented in Annex A.)

As employment and other indicators suggest, Guatemala still is largely a rural-based economy. Sixty percent of the total population resides in rural areas, and their economic well-being is closely related to agriculture and agroindustry. The other 40 percent of the population is concentrated in a very few urban centers, the largest by far being Guatemala City.

The agriculture sector is widely disparate, ranging from subsistence farming as practiced for centuries to highly technified production for sophisticated external markets. It is composed of three sub-sectors: basic food crops; traditional and nontraditional export products; and livestock production. Although basic food crops (primarily corn and beans) still are dietary staples and highly important for a large proportion of the population, this sub-sector accounts for only 11 percent of agricultural GDP.

The export sub-sector is composed of a very few traditional crops (coffee, cotton, bananas, sugar, and cardamom) that long have accounted for the major share of agricultural export

earnings. These crops together still generate 60 percent of the agricultural export sales. However, in recent years concerted efforts have been undertaken to expand total exports and, importantly, to diversify the export base. Sales of fresh and processed fruits and vegetables, ornamentals, and flowers now account for about 12 percent of agricultural export earnings. The export sub-sector is by far the largest of the three, producing 54 percent of agricultural GDP.

The livestock sub-sector accounts for 35 percent of agricultural GDP. Beef production is most important, followed by dairy, poultry, and pork products. Dairy output does not meet domestic demand, thereby requiring considerable amounts of dairy imports (mostly non-fat dry milk). Beef demand is stagnant, while broiler consumption has grown. Overall, total livestock product output has changed little for several years, and exports are relatively unimportant.

B. Recent Sector Performance

The overall performance of the agriculture sector in the 1980s has been lackluster, with no significant increase in value added. The performance of the sub-sectors has been highly varied, and their differing economic prospects have important implications for contemplated development activities.

Production of basic food crops continues to be concentrated among subsistence farms, although more commercial production has occurred in recent years. A major problem for this sub-sector relates to overall productivity growth and adequacy of future output in the face of the country's rapid population growth. Not only is current productivity for these crops among the lowest in the region, but the trend has been declining in recent years. Total output simply has not increased fast enough to keep pace with rapid population growth. Maintaining per capita availability in the future has food security implications and will require greater productivity growth and/or increased imports.

The recent performance of the traditional export sub-sector has been determined in large part by international markets for individual products. An oversupply of coffee in world markets resulted in depressed prices and substantial foreign exchange losses to the Guatemalan industry in recent years. Although production is somewhat concentrated among larger growers, there still are some 40,000 small growers whose incomes have been significantly affected by the industry downturn. In this more constricted market environment, considerable upgrading of the Guatemalan industry is required if it is to maintain its export competitiveness. Yields are relatively low, especially among the small growers. A considerable proportion of existing

plantings are old and need to be replaced with newer, higher yielding, and more disease-resistant varieties.

World cotton markets also were depressed until very recently when some recovery occurred. Facing low prices, production has fallen significantly, greatly reducing farm incomes, export earnings, and employment. Although cultivated on larger farms, cotton generates considerable seasonal employment. While yields still compare favorably in the region, the industry has become relatively high cost, due to the pest control problem requiring excessive insecticide application. Much of the land formerly planted to cotton has shifted to other uses, especially mechanized soybeans, corn and sorghum. Maintaining a competitive domestic industry will require greatly increased productivity, concentrated on much less costly pest control measures.

After declines in the latter 1970s, the banana industry stabilized, and has actually expanded somewhat in the past five years. Foreign exchange earnings and employment have regained earlier levels and now are steady. Yields continue to be among the highest in the region, and external market prospects appear to be good.

In contrast, the Guatemalan sugar industry, closely paralleling the world market, has faced adverse conditions for several years. Continual reductions in the quota access to the premium U.S. market, and chronically depressed world prices have resulted in shrinking foreign exchange earnings. Reductions in output will add to already-high unemployment among the Pacific Coastal labor force resulting from declines in the cotton industry. While the industry is relatively efficient, compared to others in the region, world market prospects are not bright, due to overcapacity and preferable alternative products (corn syrups and non-caloric sweeteners).

Although not as old as some of the other export crop industries, the Guatemalan cardamom industry has matured over the past 15 years and now is considered a traditional export crop. In the 1980s export earnings surpassed those of both bananas and sugar, and Guatemala became the world's largest exporter of cardamom. However, other countries have expanded output and severely depressed prices, with supplies exceeding demand by as much as 40 percent. Guatemala's earnings are declining, as are incomes of producers, which include some 50,000 small growers. A substantial shakeout among exporters is expected, with only the most efficient remaining, emphasizing the need for improvements in the Guatemalan industry for it to maintain its market share.

The growth in output of nontraditional crops (fresh and processed fruits and vegetables, flowers, and ornamentals) has been rapid in recent years, and they now comprise almost one-fifth of agricultural GDP and 3 percent of total exports. The growth reflects the country's attempts to diversify and expand its export base and to exploit its advantages (climate, location, abundant labor) in international markets. Market prospects appear favorable and the growth trend is expected to continue if serious obstacles to export now being encountered can be overcome.

The livestock sub-sector has changed little over the past 15 years. Total livestock product output has shown no growth in recent years, although its composition has changed. Beef production and exports have declined as a result of falling domestic demand from reduced consumer incomes and stricter quality control. The broiler industry is the only segment of the livestock sector to evidence any growth in recent years.

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Two major points emerge from this examination of Guatemala's agriculture sector. The first is that agriculture continues to be an important and critical component of the national economy. Successful efforts to improve national economic performance must stress improved agricultural performance, if more rapid growth is to be achieved over time. The second point is that the recent performance of the various sub-sectors has been highly mixed, but preponderantly poor. Moreover, some sectors (e.g., sugar) face bleak long-term market prospects and major adjustments. Others will require significant rejuvenation if they are to remain competitive. The historical importance of the sector, as well as its potential, obviously suggests it as a focal point of economic development efforts. And, although expansion of its base to nontraditional crops appears warranted, the existing base will also require attention.

While the sector faces acute problems and presents long-term development challenges, it does have considerable attributes. (The rural resource base is discussed in detail in Annex A.) It is endowed with an abundant natural resource base--large areas of productive soils, adequate rainfall, and a favorable climate--as well as an industrious labor force. Also, the country is well located geographically to enable it to compete in major international markets.

III. CONSTRAINTS TO MORE RAPID DEVELOPMENENT

Development efforts focused on the rural sector have no lack of fundamental problems to address. Most are well-known and highly obvious, and all are interlinked in the agricultural-rural-macroeconomic situation. The major problems include:

- **widespread rural poverty**
- **chronic malnutrition**
- **high unemployment and underemployment**
- **rapid rural-urban migration**
- **growing environmental degradation**
- **growing population/land pressures**
- **low levels of literacy and education**

Since the preparation of the 1984 Country Development Strategy Statement (CDSS), the Office of Rural Development (ORD) has completed several analyses of major constraints to development for the purpose of designing project interventions intended to stimulate higher productivity and faster growth of the agriculture sector. An early 1985 study (Goals, Strategies, and Project Interventions in Agricultural Development for USAID/Guatemala) identified and analyzed principal constraints to increased agricultural productivity and rural incomes. In February 1987, a more comprehensive Agriculture Sector Review was completed by the ORD. Building upon the earlier analysis, this review was expanded to include other factors inhibiting growth of the agricultural economy. In April 1987, a U.S. Agricultural Task Force was commissioned to review the entire agricultural setting and its relation to the broader national economy. It also identified major constraints and suggested some priority interventions. (The set of detailed recommendations is presented in Annex B.)

On the basis of these analyses, the principal constraints to revitalized growth in Guatemalan agriculture can be grouped into three categories: structural deficiencies, institutional inadequacies, and non-conducive policy environment.

A. Structural Deficiencies

Physical and structural constraints are closely linked to longstanding structural and political conditions in the rural sector. These include such factors as physical insecurity and uncertainty resulting from political turmoil of recent years; a perception of insecure land tenure which has been a deterrent to investment; population pressure and an unstable work force;

low per capita and highly uneven income distribution; and malnutrition among low-income groups. Perhaps even more critical is the situation of rural employment. Traditionally, thousands of small farmers have supplemented their farm incomes with seasonal, off-farm employment on large-scale farming operations on the Pacific Coastal Plain. However, as profitability of traditional export crops declined, production has shifted to less labor-intensive operations such as cattle and basic grains or lands simply have been left fallow. The current reduction in productive employment opportunities has affected incomes of as many as 600,000 rural heads of household. Simultaneously, many of these farm laborers are pressuring for access to idle lands in order to produce at least for their own consumption, while others are drifting to the cities to join the ranks of the rural underemployed. Principal physical and structural constraints include:

1. Land Distribution and Use

Land distribution is highly concentrated. Traditionally, the agriculture sector has been dominated by a few large, relatively wealthy landholders with plantation-size operations specializing in traditional export crops (e.g., coffee, cotton, bananas, sugar, cattle) with access to good infrastructure. At the opposite end of the spectrum, the agricultural population is characterized by a large number of smallholders, tenants, and laborers who are barely able to produce beyond subsistence. These small farmers produce the bulk of the basic grains needed to meet domestic demand, have little access to capital, are faced with extremely deficient infrastructure, and use traditional, low-yielding farming technologies. This dual agricultural structure does not permit the most efficient use of scarce land resources, especially in the Highlands.

2. Marketing/Storage/Processing

As long as Guatemala's agriculture sector was largely oriented toward traditional export markets, marketing, processing, and storage were generally adequate. However, as nontraditional exports have become increasingly important, marketing infrastructure has become a greater bottleneck. Although a few vegetable and fruit packing and freezing plants exist in parts of the Highlands, they are under-utilized, under-capitalized, not efficiently operated, and not satisfactorily linked with external buyers and local producers, thereby inhibiting potentially greater amounts and value of nontraditional exports.

3. Roads

Although Guatemala has a well-developed primary and secondary road system, the lack of tertiary and farm-to-market roads, particularly in the Western Highlands, limits small farmer access to agricultural inputs and constrains their ability to reach market outlets. When available, transport is both expensive and unreliable. Although Highland farmers have the potential to diversify and increase their production, they have little incentive to do so because they still must rely heavily on human or animal transport to move their products to market. Also, road maintenance is deficient and a serious deterioration has been observed in some key primary roads such as that to the Atlantic Coastal port. This has a very negative impact on all agricultural exports--traditional and nontraditional--in terms of increased transportation costs and product damage. Additionally, a ROCAP regional transportation study undertaken in early 1987 pointed to the lack of adequate port facilities, storage, and refrigerated transport as a serious deterrent to increasing export of perishable, nontraditional products.

4. Natural Resource Management

In many areas of the heavily populated Highlands, the felling of trees exceeds natural and artificial restoration. The fundamental reason for this stems from the high consumption of logs for fuelwood, forest fires and tree pests, and clearing of land for agricultural use. Natural forest stands are being depleted by one percent per year, which will result in the disappearance of the natural woodland cover of Guatemala within 40 years if appropriate afforestation, reforestation, and forest management actions are not taken immediately.

Much of the land being cleared of forests is highly susceptible to erosion, particularly in the densely populated and intensively cultivated Highland areas. This erosion is estimated to be 4 million metric tons of topsoil per year in the Quetzaltenango Valley alone. This loss quicklyleads to soil impoverishment and loss of fertility, thus increasing already severe rural poverty and causing farmers to clear even steeper slopes. Without applying soil conservation, there will be little productive, sustainable agriculture in these areas over the longer term, while yields will remain low.

5. Irrigation

The relatively short moisture retention period of volcanic soils and the sharply delineated dry season

(January-April) in most parts of the country result in the lack of sufficient moisture to produce crops during the entire year or achieve the highest productivity possible. Presently, the country is irrigating only 3.5 percent of its irrigable land, much lower than any other Central American country. Of the 17,300 hectares with access to irrigation, only 5,800 hectares are actually being irrigated due to lack of secondary canals and inadequate maintenance, resulting in a great productive potential going untapped. The lack of irrigation also inhibits crop diversification which finds its best markets during the dry season.

6. Energy

Although the government has been effective in meeting urban power demands, only 7 percent of Guatemala's rural population has access to electricity, the lowest rate in Central America. Approximately 4.4 million inhabitants of rural areas are without electricity. Even more critical is the lack of sufficient and reliable power for industrial operations which could be located in the heavily populated areas of the Western Highlands. This industrial development could provide off-farm employment as well as processing services to the rapidly increasing nontraditional farming sector. The lack of electricity also has been a barrier to the development of smaller cottage industries which rely on an outside power source.

B. Institutional Inadequacies

The institutional constraints facing the agriculture sector are the result of a combination of factors resulting from a declining public sector service network, insufficient budget allocations, declining private sector investment, low levels of trained and educated agriculturalists, and struggling farmer associations. These conditions are manifested in low farm productivity. Principal institutional constraints include:

1. Technology Development and Dissemination

Although the Agricultural Science and Technology Institute (ICTA) once had the reputation of being an excellent research institution, it has deteriorated, constrained by a limited budget, inability to adjust to nontraditional crop research, and reduced outreach capability to transmit appropriate technologies and production information to farmers. Additionally, due to the wide variety of climatic and soil conditions, many ICTA technologies are not appropriate for many areas of the country. Likewise, private traditional crop producers' associations have made little effort to finance and

undertake their own research.

Dissemination of research results and application of improved management techniques are especially difficult given the diversity of the farm sector. The Agricultural Extension Service (DIGESA) and Livestock Extension Service (DIGESEPE), facing resource and personnel constraints, have had only limited effectiveness in contributing to improved farmer productivity.

2. Input Supply System

Fertilizers, seeds, and pesticides are widely used in traditional export agriculture, and now are increasingly in demand for nontraditional export production as well. Nevertheless, distribution networks are unreliable, with recent government interventions in input marketing further weakening the system. The small farmer is at a particular disadvantage in this market since supplies are not always available at the times and locations needed, and prices are subject to wide fluctuations.

3. Credit Delivery System

The use of relatively high-cost technology packages (improved varieties, fertilizers, pesticides, etc.) is dependent upon availability of short-term production credit. Currently, access to production and long-term investment credit is severely limited. The National Agricultural Development Bank (BANDESA) is the primary source of small farmer credit (30,000 borrowers). However, it is under-capitalized, poorly organized, bureaucratic, and generally incapable of meeting farmers' credit needs. Lending regulations and practices of the commercial banking system are conservative and restrictive, with small farming operations traditionally not having access to private bank lending. As production of nontraditional export crops increases, demand for credit in these relatively capital-intensive enterprises grows proportionally. Removing the credit constraint through improvements in both private and public sector institution operations is essential to development of a diversified agriculture sector.

4. Farmer Associations

Guatemala has a large number and wide variety of farmer organizations. However, many suffered during the political strife of 1975-1983, and are now heavily in debt, disillusioned, possess weak leadership, and have lost membership. Effective farmer organizations have the potential to provide inputs, credit, technical assistance, and marketing support to their members. Of equal importance, they expand the

outreach of other private and public sector support institutions. The present government is supportive of the development of farmer organizations. Nevertheless, recovery of these associations will require substantial financial andtechnical resources, as well as a willingness by the government to provide a continued supportive policy climate.

5. Agricultural Education and Training

This constraint is especially critical when dealing with the introduction to subsistence farmers of nontraditional crops which brings with it high levels of technology and appropriate use of inputs and credit. Written materials, which can be a very important means of instruction and communication, have limited utility among an uneducated populace. Perhaps as important as low levels of technical preparation of public sector research and extension personnel is the dearth of administrative/management capabilities among public sector officials. Improved and expanded training and education programs can introduce technological and cropping pattern changes at the farm level, improved communication and dissemination of information, and greater efficiency in program and project implementation.

C. Non-Supportive Policy Environment

Policy impediments are among the most serious obstacles to improved growth, efficiency, and investment in the agriculture sector. These include elements of general macroeconomic policies (monetary, fiscal, exchange, trade) and specific sectoral policies (land distribution, water use, pricing, research, budgetary allocations). Since the policy reform agenda will be a principal component of the Mission's proposed agriculture sector-specific support, a detailed review of the policy issues relevant to this Strategy is provided in Section V.

IV. AGRICULTURE SECTOR GOAL STATEMENT AND STRATEGY

The overall goal of the USAID/Guatemala Mission is to maximize the impact of its resources in achieving more rapid and sustained economic growth, improved quality of life, and strengthened democratic institutions in a manner consistent with both U.S. and Guatemalan ideals and objectives.

Within this framework, the goal of the Mission's agricultural development assistance program is to enable the rural sector to make a greater contribution to national

economic growth with a greater sharing of these benefits of growth by the rural poor majority. This goal will be achieved through increased sustainable production, greater employment, rising rural incomes, and an enhanced natural resource base.

This goal is fully consistent with and contributes to other U.S. objectives in the region including: the CAI goal of 3.5 percent annual regional agricultural growth; the Mission's current CDSS; the ongoing rural development assistance program; the Kissinger Commission (NBCCA) goals; the findings of the recent U.S. Agricultural Task Force; the Mission's two latest Action Plans; and the LAC Agricultural and Rural Development Focus Statement. In addition, the objective is in full accord with the GOG's plans and strategies for agricultural development. (See Annex C for more detail.)

The Mission will maximize the impact of its limited resources and operational capacity by:

- o concentrating its resources and attention on the most limiting constraints first;
- o effectively leveraging limited resources with the GOG and other international donors;
- o incorporating the private sector's technical and financial resources into the development process;
- o selecting activities which maximize the integration and use of local currency from ESF, PL480 and Section 416 programs; and
- o focussing on activities in which USAID/Guatemala has a unique advantage and/or positive experience.

As highlighted in the Summary Overview, Guatemalan agriculture is dualistic, composed of "commercial" (export oriented) production systems and "subsistence" production systems. Both are very important to the Guatemalan national economy, the former because of its historical contribution to agricultural GDP, export earnings, and tax contributions, and the latter because of its numerical size, contribution to basic food consumption, and potential to more fully participate in and contribute to overall growth. In order to reach the CAI's 3.5 percent annual target growth rate in agricultural GDP over the strategy period, attention must be paid to both the commercial and the subsistence production systems.

A. Subsistence Agriculture

Subsistence agriculture is presently not equipped to respond quickly and unreservedly to changing market conditions principally because of structural and institutional impediments. In order for this system to become competitive in a commercial market environment, major supply-side project interventions are required. Thus, DA and PL480 supported activities directed to smallholder farmers and rural poor principally in the Western Highlands will constitute the vehicle for converting this production system into modern, commercial agriculture.

Conditions in the Highlands justify its selection as the geographic area of principal concentration for A.I.D. project interventions. It contains 67 percent of the country's rural population who are primarily involved in subsistence agriculture as described in Section I. It is also the poorest area with 90 percent of the families earning less than $2,400 annually, or less than $500 per person. The region has a population density of 191 persons per square kilometer and only 19 percent of the good lands (0.2 acres per person). Population growth here is high, resulting in increasing land pressures and subdivision of already small rural properties into more micro plots. Dependence on basic grain production for a livelihood on these small farms does not permit the owners to generate any significant production or income surplus with which to purchase off-farm goods and services or invest in farm improvements. In fact, many of these subsistence farms are no longer capable of supporting a family using traditional cropping patterns and technologies, thereby forcing family members to migrate to other regions (e.g., South Coast plantations, the capital city) in search of employment.

While population concentration and extremely small parcels of land are serious constraints to improved income and employment in the Highlands, the comparative density of the indigenous population (the target group) makes it an unambiguous choice for emphasis in terms of cost-effective delivery of assistance and farmer organization. It is an area that is small enough to be logistically manageable, but representative enough so that success in the region can radiate outward through replication. In addition, this region is well suited by virtue of its volcanic soils and cool climate to the profitable production of temperate fruits and vegetables, as demonstrated in past and present Mission projects.

Given this Highland concentration for A.I.D. project interventions, the objective is to transform these subsistence farms into small, commercial operations. This will result in production surpluses to increase family incomes, savings, and

consumption; greater on-farm investments; greater demand for off-farm goods and services thereby stimulating additional rural investment; and less incentive to migrate to already over-populated areas in search of limited employment. Greater agricultural GDP and increased market participation by these "transitional" farms will create expanded growth and enable the target group to receive greater benefits from this growth (as has been the case in Taiwan, Korea and Japan, for example).

Due to increasingly limited land resources in the region, it is necessary to introduce labor-intensive, high-value crops and/or small livestock (pigs, chickens, rabbits, etc.) which can use small areas while taking advantage of the soils, climate and available labor to produce a surplus for both domestic and international markets. The GOG and Mission's choice since the early 1980s to facilitate this transformation has been "diversification" (fruits and vegetables) while simultaneouly improving supporting rural infrastructure (irrigation, terracing, roads, electrification, processing industries) and institutional support (research, extension, credit, land markets, product marketing, farmer organizations). (See Table 1 for more detail on USAID interventions in these areas since 1982.)

The results of this diversification effort have been very encouraging. In an evaluation of diversification efforts in the Cuatro Pinos Cooperative undertaken by the International Food Policy Research Institute in collaboration with INCAP (Nontraditional Export Crops in Traditional Smallholder Agriculture: Effects on Production, Consumption, and Nutrition in Guatemala), the following conclusions were drawn by the study:

- o as nontraditional crops, export vegetables appear to be a promising option for development due to their high labor intensity and expanding demand in industrialized countries;

- o nontraditional export crops are substantially more profitable to farmers than traditional crops. Net returns (gross margins) per unit of land of snowpeas--the most important new crop--are on average five times those of corn--the most important traditional crop;

- o nontraditional export crops created local employment directly on farms and indirectly through forward and backward linkages and multiplier effects resulting from increased income spent locally. Labor input in agriculture increased in the export vegetable producing farms by 45 percent--about half of this from family labor and half from hired labor;

- aggregating farm level employment with a rough estimate of employment created through input supply and output marketing yields an overall 21 percent increase in agriculture-related employment, thereby reducing interregional migration of farm household members;

- while maintaining small amounts of corn production for family consumption, corresponding corn yields increased due to improved crop management (more fertilizer and weeding) of the subsistence crop once new export crops were introduced; and

- expenditures--used as a proxy for income--increased by 38 percent, in which the poorest, smallest farms moved upward on the income scale.

Similar results were found in an impact survey undertaken in February 1987 as part of the Mission's Small Farmer Diversification Project. Of a sample of 1,142 farms (738 of which were directly or indirectly involved with the project), the preliminary results are the following:

- farms which diversified because of the project earned more than three times the net income than farms which did not diversify; and

- diversified farms consumed 10 percent more food than non-diversified farms.

Key factors in achieving diversification and increased productivity in the Highlands are soil terracing and small-scale irrigation. Independent of the above two studies, other sources indicate that soil terracing can double agricultural production of basic grains, while small-scale irrigation can increase agricultural production/incomes by five times with vegetable production, all within two years of installing these land improvements. Experience has proven that soil conservation/irrigation results in perhaps the greatest impact on transforming farms from subsistence to commercial operations in a short time frame. Combined with nontraditional fruit and vegetable production, it enables these small farms to break the cycle of poverty and participate in the market economy as both producers and consumers.

However, irrigated crop diversification by itself is not sufficient to assure the permanent, massive transformation of subsistence farms. Supporting structures and services such as the following are also necessary: good rural roads to access inputs, products, and services; development and dissemination of technologies appropriate to new, nontraditional crops; timely farm credit to finance the more expensive technologies;

accessible markets and processing facilities for the new products; and effective farmer organizations to access the inputs, market the products, and manage the irrigation systems. Although there are other serious constraints to agricultural development as discussed in Section III (including a non-conducive policy environment), the above interventions -- combined with and directly supporting a concentration on irrigation and crop diversification -- have been selected by the Mission to form a tightly focussed, highly targeted strategy for subsistence farms in transition.

Since diversification will result in increasing amounts of nontraditional agricultural exports, mention should be made of international demand for fruits and vegetables. According to the 1986 Produce Marketing Almanac, fresh fruit consumption of noncitrus (apples, kiwi, papayas, strawberries, etc.) in the U.S. has increased constantly from 48 pounds per person in 1972 to 66 pounds per person in 1984 (an increase of 37 percent). Simultaneously, fresh vegetables and melons have constantly increased from 70 pounds per person to 82 pounds per person during the same time period (an increase of 17 percent). Also, per capita consumption of selected tropical fruits (papayas, avocados, bananas, and pinapples) increased by 33 percent from 1970 to 1983. There is no reason to expect that this per capita consumption in the U.S. will not continue to grow, and that Guatemala can capture part of that growth through a high quality, reasonably priced product which it is capable of providing.

Domestic and Mexican markets for fresh fruits and vegetables also hold promise. Mexico's population will grow to 120 million people by the year 2000, while the immediate Tapachula market demand will increase from 10 metric tons to 50 metric tons by 1990. Guatemala City will double its population in the next 15 years, with supermarket demand (for Paiz and Samaritana, the two largest chains) increasing from 20 metric tons to 100 metric tons by 1990. Additionally, expanding markets for frozen and processed fruits and vegetables exist in the U.S., Europe, Mexico, and the rest of Central America.

B. Commercial Agriculture

Modern, export agriculture has the capability of generating its own short-run response to market incentives, given the appropriate policy and institutional environment. Accordingly, Mission efforts in support of this group will focus on removing the policy and institutional impediments to economically sound growth. The vehicle for these initiatives will be agriculture sector-specific support as detailed in the following section.

V. PROPOSED STRATEGIC INTERVENTIONS

Commercial export agriculture will be emphasized during the five-year strategy period, using both agriculture sector-specific policy dialogue and support and specific project interventions to achieve the goals established in Section IV.

On the basis of the series of strategy and analytical documents mentioned earlier, the following six priority constraint areas have been identified for Mission project concentration: irrigation, farm credit, agricultural research and extension, product marketing and processing, natural resource management, and rural infrastructure. A description of the existing and new interventions which impact on these priority constraints follows.

A. Continuation/Expansion of Existing A.I.D. Interventions

Experience and evaluations indicate that it makes good sense for the Mission to continue and expand what it is already doing well in the following selected intervention areas.

1. Irrigation

As mentioned earlier, small-scale irrigation activities financed by A.I.D. over the last ten years have been very successful in increasing farmer income, employment, and crop diversification. Irrigation systems for small farmers will continue to be constructed through FY 1992 under the expanded Highlands Agricultural Development Project. Large amounts of local currency already have been made available to the Ministry of Agriculture from the 1986 Section 416 Sugar Compensation Program for expanding small and medium-scale irrigation systems throughout the country. This activity will be considerably increased with PL 480 Title I local currency funding during the strategy period while institutional strengthening and operational improvements in irrigation management and policy issues will be handled under the sector-specific assistance. The rational, efficient installation of irrigation systems will be aided by the preparation of a national master plan for water use and a water law (both supported by the sector-specific assistance), while increased emphasis will be placed on contracting the private sector to undertake the feasibility studies and construction of the systems. With this increased emphasis on irrigated agriculture, the Mission will expand its support to medium-scale pumping systems when small farmers can be benefited. These Mission activities will result in 33,000

hectares of irrigation being constructed and operating during the strategy period and benefitting 41,500 farm families, resulting in Q115.5 million of increased value of production.

2. Farm Credit

The Agricultural Development Bank (BANDESA) has been the main channel through which the Mission has provided credit to small farmers and rural organizations since 1970. Although the Bank has its operating problems, it is reaching approximately 30,000 small and medium-sized farmers who would otherwise not have access to institutionalized credit at reasonable rates. The Bank has an extensive rural infrastructure spread throughout the country and is one of the few institutions providing loans to cooperatives and farmer associations. Given its outreach, concentration on the A.I.D. target group, and progress and expressed interest (described in Section VI, Special Concerns) in improving its operations, the Mission could provide additional financial resources to BANDESA if the Bank continues to make institutional improvements, while simultaneously strengthening private sector institutions (e.g., cooperative federations, PVOs) for delivery of farm credit to the target group.

As shown in Table 1, the Mission presently has five projects which are channeling credit to rural producers: three through BANDESA, one through private banks, and one through a PVO. Through incorporation of expanded diversification activities into the Highlands Agricultural Development Project in FY 1988, additional concentrated technical support will be provided to BANDESA through FY 1992. (For a more in-depth discussion of BANDESA, see the section on Special Concerns.) A third project with BANDESA (ESF/83) will be deobligated/reobligated during FY 1988 to more appropriate credit uses within the Bank. A critical analysis of the credit moved through BANDESA and the private banks under the Agribusiness Development Project will be undertaken in April 1988 to determine its continuation or deobligation/reobligation to other marketing activities. The credit activities through the PVO (Penny Foundation) were expanded in FY 1987 and will be continued through FY 1992. The Technification of Traditional Export Crops Project will establish a credit fund in FY 1989 for renovating and expanding small farmer permanent crop production in crops such as coffee, cacao, cardamom and rubber. Additional financial resources for rural credit during the 1988-1992 strategy period would be provided principally through PL 480 Title I local currency generations, with small amounts of DA resources used for technical assistance to the various financial institutions. Through these activities, the Mission expects to move an existing $10 million of its own

funds to 5,000 small and medium-sized farmers during the strategy period. It is also expected that improvements in BANDESA resulting from the Mission's assistance and policy dialogue will leverage up to an additional $40 million of Interamerican Development Bank (IDB) funds to BANDESA for farmer lending.

3. Agricultural Research and Extension

Often referred to as technology generation and transfer, the Mission presently has one project (Small Farmer Diversification) in this area. These activities will be expanded under the broadened Highlands Agricultural Development Project, providing additional support to ICTA and helping establish a private sector research foundation for diversified crop technology development, emphasizing integrated pest management. In addition, the new Technification of Traditional Export Crops Project, to be initiated with the private sector in FY 1989, will develop and disseminate improved production and processing technologies for permanent export crops for small producers, thereby improving product quality, reducing per unit cost of output, and maintaining and/or expanding world market share. DIGESA and DIGESEPE will continue to receive support under the expanded Highlands Agricultural Development Project in the more extensive transfer of appropriate crop and livestock technologies. During the strategy period these Mission activities will provide improved technologies to 25,000 small and medium-sized producers, resulting in increased value of production of Q22.8 million.

4. Product Marketing and Processing

Although the Mission has a long-range concern for marketing of increased agricultural production resulting from irrigation and crop diversification (it has, in fact, a number of existing project interventions), its piecemeal, non-integrated approach has been perhaps the weakest link in past A.I.D. assistance. This was recently pointed out by evaluations of the Small Farmer Diversification and Highlands Agricultural Development Projects, which identified marketing as a top priority of diversification. Consequently, the Highlands Agricultural Development Project -- to be expanded in FY 1988 to include diversification activities -- will have a major component in domestic and export marketing, collaborating with the ongoing Agribusiness Development Project in developing an integrated approach to this key intervention. Simultaneously, the Agribusiness Development Project will extend and expand its CLUSA (Cooperative League of the USA) contract through FY 1990 to work with fruit and vegetable exports and domestic marketing through cooperatives. The Dairy Development Project will continue its efforts through FY 1989

in the marketing of dairy products while the Private Sector Development Coordination Project will be expanded in FY 1988 to improve FUNDAP's marketing of wool products. Institutional strengthening and reorganization of the National Marketing Institute (INDECA), additional marketing interventions, and marketing policy will be dealt with simultaneously within the sector-specific policy dialogue and support.

5. Natural Resource Management

In July 1987 the Mission added $7.5 million of DA funds to its Penny Foundation grant (Project 0343) to expand the land purchase/sale program inititiated in 1984 as a pilot effort. (For more detail on public and private interventions in land markets, see the Special Concerns section.) This additional grant will permit the Foundation's land market program to be self-financing by 1992. During the strategy period, this program will benefit 2,000 farm families (1,200 additional families annually starting in 1993), resulting in increased value of production of Q51.5 million. No other direct DA interventions in land redistribution are contemplated by the Mission during the strategy period.

The Mission will continue to finance soil conservation activities under the expanded Highlands Agricultural Development Project through FY 1992. All soil conservation construction with PL 480/84 local currency funds will be completed by the end of FY 1988 or reprogrammed accordingly. In addition, considerable amounts of PL 480 Title I local currencies and PL 480 Title II food-for-work will be made available during the strategy period for expanding soil conservation activities through the Agricultural Extension Service (DIGESA) and PVO's. These Mission activities will result in 24,000 hectares of soil conservation being constructed during the strategy period, benefitting 75,000 farmers, facilitating the installation of small-scale irrigation on hillsides, and enhancing sustained productivity.

The Mission's pilot forestry effort will continue under the Highlands Agricultural Development Project through FY 1992 with an expansion into agroforestry. Considerable amounts of PL 480 Title I local currency funds and PL 480 Title II food-for-work will be used during the strategy period to expand reforestation/forest management activities through PVO's in key Highland watersheds where the Mission has complementary activities. Private forest management/reforestation activities will be stressed, with appropriate incentives for rational management provided by the GOG to the private sector (especially through the passage of a new forestry law supported by the sector-specific policy dialogue). During the strategy period 10,000 hectares will be reforested under these Mission

activities. In FY 1991 the Mission will undertake a new Watershed Management Project which will integrate soil conservation, agroforestry and pasture management to enhance the natural resource base in additional selected watersheds throughout the country.

6. Rural Infrastructure

The Mission has been very successful in institutionalizing the planning and implementation of labor-intensive rural road construction and maintenance. An additional $1.7 million of DA, $5.5 million of ESF loan funds, and $1.0 million of ESF grant funds were added to the Farm-to-Market Roads Project in FY 1987 to expand the activity through FY 1991, with considerable additional DA funding to be added in FY 1988 and FY 1989. Similar activities under the Highlands Agricultural Development Project will be continued through FY 1990, with large amounts of local currency from ESF being allocated to local construction and maintenance costs. A total of 4,100 kilometers of roads will be constructed and maintained during the strategy period.

The Mission has also had successful experience with rural electrification under its Rural Electrification I and II Projects. Therefore, the Mission will expand these activities in FY 1988 and FY 1989 with DA funds. During the strategy period, 250 kilometers of subtransmission lines and 500 kilometers of distribution network lines will be installed (serving 33,000 families) while a productive uses focus will be introduced to capitalize on newly installed electrification for household, cottage industry, and micro and small business applications.

* * *

Permeating all of the Mission's activities in the agricultue sector is the organization and strengthening of rural and farmer organizations. The Mission presently is implementing five projects working directly with these groups: 0274 (irrigation associations), ESF/83 (cooperatives), 0276 (cooperatives), 0286 (cooperatives), and 0363 (rural unions). This emphasis will continue to be the cornerstone of the Mission's DA interventions during the strategy period.

A summary of the continuation and expansion of existing AID interventions during the strategy period is provided in Table 1.

B. Agriculture Sector-Specific Policy and Institutional Reform

Guatemala's commercial agriculture sector is comprised primarily of the producers of traditional export crops (coffee, sugar, bananas, cotton and cardamom) with small but rapidly growing exports of nontraditional, high-value agricultural products, both fresh and processed. World market prices of these commodities are highly seasonal and volatile. Sudden dramatic price changes can account for variations of one or two percentage points in Guatemala's real growth rate. This variability makes it difficult to forecast with any degree of confidence the performance of the sector in any single year. Target rates of growth, therefore, must be seen as averages around which there will be unavoidable oscillations.

In order to minimize performance variability, agricul - ture sector-specific support will help create a policy environment that includes stable and predictable macroeconomic and financial policies and the development and improved efficiency of the institutional and infrastructural base required to support a robust, internationally competitive export agriculture. The sector-specific approach provides the best overall development framework for the sector, an effective integration of PL 480 and ESF funds into the development process, a more focussed emphasis on agricultural policy dialogue and reform, and more direct budget support to address key problem areas in the agriculture sector without relying on a larger number of individual projects which would overextend the management capabilities of the Mission and the GOG.

A key requirement for successful sector-specific support is the availability of large, continual amounts of local currency resources for direct budgetary support. The program proposed hereinafter will require a minimum of $28 million annually of ESF and PL 480 local currencies, which is the amount required to enable the Ministry of Agriculture to expand its budget and command a 7.6 percent share of the total public sector budget by 1990.

Two principal action areas will be dealt with: policy dialogue and reform and public sector institutional strengthening and reorganization. Both components involve establishing specific and tangible measures of progress (benchmarks) with continued program funding conditioned on successfully meeting established targets.

1. Policy Dialogue Agenda

The agriculture sector is not beset with government interventions to the extent of many other countries in the region. Also, the sectoral policies that do exist

appear fairly benign. But, this does not mean that sector policy is optimal. Rather, there appears to be little overall policy direction to guide public investment and other interventions that would engender faster growth and development. This suggests a considerable potential for policy dialogue to achieve improved policies and resulting expanded investment and production.

To this end, the Mission will use all three of its financing instruments (DA, ESF, PL 480) to maintain an ongoing, productive policy dialogue with the public agriculture sector as well as with the GOG Ministries of Finance and Economy, and the Central Bank. However, it appears as though the potentially greatest payoff to policy dialogue lies not in sectoral policy changes, but rather in macroeconomic policy adjustments. Therefore, the policy agenda will deal primarily with macroeconomic policy and secondarily with sectoral policy. The relevant issues and their importance to export agriculture are discussed below, with a description of the recent policy environment provided in Annex D.

a. Macroeconomic Policies

(1) Exchange Rate Policy. The price received by an exporter depends not only on the condition of external supply and demand, but also on national policy. If exporters are required to surrender their foreign exchange earnings, and the value of foreign exchange in local currency is fixed by government policy, then this policy is a determinant of the earnings realized on investment and production for export. In recent months, there is evidence that the foreign exchange market in Guatemala may be in a serious state of disequilibrium. International reserves have declined steadily, imports are significantly above last year's level, and export earnings have dropped. This suggests that the price of foreign exchange may be too low, given its degree of scarcity. If this is the case, exporters, by being forced to surrender their earnings at the current price, are being forced de facto to subsidize importers at the cost of lower yields on their own investments.

In discussions with the GOG, the Mission will seek to reach agreement on a workable automatic mechanism to adjust the exchange rate to keep it consistent with the other policy elements (most particularly monetary policy) that influence the demand for foreign exchange and the nation's international reserve position.

(2) Fiscal Policy. Another policy influence on prices received by exporters is the tax system. In principle, taxes should not induce changes in what is produced,

the methods of production, or the markets targeted. Export taxes clearly violate this principle. Ironically, they are a disincentive to the very production the GOG ostensibly seeks to promote, namely exports. While the export tax is scheduled to be gradually removed, the importance of the revenue from this source presents a temptation to slow the removal. Thus, retaining this prominently on the Mission agenda for dialogue is important.

(3) Budget Policy. It is also important to deal with overall public expenditure on the agriculture sector, especially in relation to its contribution to GDP. Currently, only about 3% of the national budget is devoted to the sector responsible for 25% of GDP. An important first question, of course, is what the optimal allocation should be and in which specific areas. Both questions require greater examination to venture even rough estimates. But it appears quite likely that a greater share of the national budget for the Ministry of Agriculture would improve overall performance. And it is likely that within the Ministry of Agriculture budget, greater expenditures for research and extension activities, especially focused on irrigated fruits and vegetables in the Western Highlands, would be cost-effective. Also, increased expenditures for improved land registration, titling, and title transfer would increase the efficient utilization of the land resource, something much needed both for improved incomes and total output.

(4) Credit Policy. One of the most serious immediate concerns is public policy governing the allocation of credit among competing users. A tradition in Guatemala of fixing interest rates by regulation is one of the problems. If the rate is set below the rate that would equate the amount demanded with the amount available, the mechanism that directs savings to their most productive use is defeated. If it is set too high, some economically efficient investments are likely to be foregone or deferred. Guatemala's traditional export crops seem to represent clear areas of comparative advantage (i.e., economic efficiency.) Such a policy, therefore, is likely to result in under-production for export, whether the rate is set too high or too low. The Mission will seek to influence the GOG to phase out interest rate controls.

Another component of credit policy that may promote sub-optimal use of resources is the tradition of qualitative credit controls. Guatemalan banking law gives preferential discount treatment to loans secured by particular crops (e.g., cotton.) The Mission will seek to ensure that all such discriminatory provisions are deleted from the laws and regulations of the Bank of Guatemala.

A final element of credit policy to be included in the sector-specific policy agenda will be the selection of techniques employed to control aggregate credit expansion. A method that is used from time to time is to subject each bank to a ceiling percentage increase in credit to the private sector. This approach subjects the most innovative, aggressive lenders to more regulatory restraint than the more conservative, traditional banks who hold an exceptionally high level of liquid assets in any case. It reduces the competitiveness of the banking sector in general, and is especially injurious to the higher risk, nontraditional sub-sectors such as export agriculture. The Mission will seek agreement with Bank of Guatemala and GOG authorities for the elimination of this counter-productive credit control measure.

(5) Trade Policy. Very closely related to removal of the export tax disincentive are the several rules, regulations, licenses, and other requirements affecting exports. These constitute a serious impediment to exports. Reform of these procedures and requirements could serve to facilitate exports, rather than impede them as at present. Again, the GOG appears to be taking positive actions in this area (e.g., the one-stop center concept), but faster progress could be encouraged.

In order to address volatile issues not directly related to trade but having a strong influence over it, the GOG has, over the years, adopted a number of policies that impede the development of export agriculture. Examples include the following:

(a) The GOG may issue, and has done so, regulations prohibiting the exportation of corn and other basic grains, meat and other products. The motive is domestic food security. The obvious negative effect is on export earnings.

(b) Import licenses may, at the discretion of the government, be required for a lengthy list of goods. The motive is protection of domestic industry. The negative impact falls on producers who are limited in their choice of inputs and who lose the benefit of more competitive pricing.

(c) Availability of air transport is substantially controlled by the national airline. The motive is to protect it from competition. The losers, again, are those for whom the availability and cost of shipping influences the yield on investment in production for export.

(d) Port facilities and surface access to Guatemala's ports are poor. This raises costs and reduces

earnings of exporters, and thus is an obstruction to export agriculture.

(e) To simplify the process of satisfying bureaucratic and regulatory requirements for export and import, a "one-stop window" has been established by the GOG. However, the window is in Guatemala City and the exporters (and potential exporters) are found nationwide. Establishing a second "one-stop window" in Quetzaltenango, for example, could lower costs for a significant proportion of the country's exporters. Its feasibility should be explored.

(f) Guatemala's tariff structure is characterized by a high degree of variability and, consequently, wide differences in the incentives and disincentives they create for different types of production. Agriculture in general and export agriculture in particular are strongly disadvantaged. This system must change if export agriculture is to prosper.

b. Sectoral Policies

In the agriculture sector itself, the three most important topics on the policy dialogue agenda are diversification, marketing/pricing, and natural resources.

(1) Diversification. Combined with the key macroeconomic policy adjustments discussed above (especially those related to the exchange rate and trade), developing a clear-cut agricultural diversification policy, plan and the appropriate guidelines and incentives is perhaps the most effective way to accelerate Guatemalan agricultural development. This includes: a determination of the non-traditional priority crops and practices to be researched; additional resources being concentrated on this research; incentives to incorporate the private sector into non-traditional crop research and extension activities; the passage of a water use law; development of a national water use master plan; increased resources dedicated to irrigation construction and operation, especially through the private sector; greater access to financing of production, processing, and marketing of diversified crops; continued commitment to decentralize and improve BANDESA's operation as the principal provider of credit to small farmers and farmer groups; a comprehensive review of banking regulations and procedures to determine areas of improvement in credit access and delivery; and establishment of incentives for agro-industrial investment in rural areas to service diversified crop production.

(2) Marketing/pricing. Input and commodity pricing policy has perhaps the greatest potential for

relatively quick improvements in economic activities. Frequently, interventions by the public sector distort open pricing and marketing relationships, thereby confusing market expectations and removing incentives for private sector participation. Appropriate market and price incentives can stimulate agricultural production and productivity, while inappropriate ones can have the opposite effect. Among the policy dialogue issues are the following: channeling of internationally donated agricultural inputs (fertilizers, tools, etc.) through rural private enterprises (especially cooperatives and farmer associations) at cost-plus market prices so as not to destroy existing private sector input marketing mechanisms; review of the GOG policy of purchasing export commodities (especially cardamom) in order to support prices established by international markets; analysis of the impact and role of INDECA in pricing/marketing of basic grains and possible alternatives to existing interventions (e.g., basic grains futures market); and enhancing private sector market participation through a system of regulated grades and standards, as well as accurate and timely market price information.

(3) Natural Resources. In order to sustain production on fragile lands -- which are used principally by small farmers -- and increase incomes over the long run, it is extremely important to develop a natural resources management plan and incentives to encourage appropriate use. This includes: the passage of a forestry law which would regulate appropriate use; establishment of incentives to encourage private sector reforestation and forest management; fuelwood research and production; restructuring of INAFOR to provide improved services and control; development of a national watershed management master plan which would prioritize watersheds to be managed and interventions to be employed (soil conservation, reforestation, agroforestry, etc.); and the passage of an environmental control law which would regulate the use of pesticides, control contamination of water and soil by agrochemicals, and establish protected areas for maintaining biological diversity and important ecosystems.

The above sector policy dialogue would be carried out between the Mission and the Ministries of Agriculture (and its dependencies), Economy and Finance, while maximizing the participation of the appropriate private sector entities.

2. Institutional Strengthening and Reorganization

On the basis of the earlier constraints analysis and the existing and future interventions undertaken by

participating international donor institutions as described in Table 1, it can be observed that there is certainly no lack of specific interventions in the public agriculture sector (more than 70 projects for $470 million) dealing with the constraints. In an interagency meeting of international donors involved in agriculture held in June 1987, the commentary was unanimous that project/program implementation in Guatemala was very slow due to inefficient, ill-trained public sector officials, lack of adequate GOG counterpart technicians and funding, and burdensome administrative procedures for procurement of goods and services. In 1986 the Ministry of Agriculture implemented scarcely 20 percent of its allocated investment budget (better than most other line ministries), while the government was required to pay the IDB $8 million in penalties for not disbursing its monies in a timely manner.

In the agriculture sector, the GOG is faced with the dilemma, within the context of limited resources, of encouraging the commercial sector to continue to produce sufficient food and cash crops to feed the country and generate foreign exchange from agricultural exports while stimulating and enabling larger numbers of small farmers to enter the commercial economy. To achieve this objective of "growth with equity" within the agriculture sector requires financial resources that far exceed the GOG's present and near-term capability, i.e., there is a medium-term GOG budgetary gap.

In order to reduce this gap to a minimum, execution of the public sector investment budget has consequently been curtailed. This, in turn, has slowed the development of infrastructure that is absolutely essential to realization of production potential. Irrigation, farm-to-market roads, access to adequate transportation, and development of efficient port facilities are examples of supporting infrastructure that has lagged. While this problem has slowed the realization of growth potential generally, it has been particularly harmful to export agriculture. It will continue to have a high priority on the Mission's policy dialogue agenda.

In negotiations leading to the FY 1987 ESF supplemental, the GOG agreed to adopt and implement within its 1988 budget, a sub-budget called a Core Development Budget (CDB). This will consist of the highest priority public expenditure items, primarily from the capital budget. Items in the CDB will be protected from cuts due to financing shortfalls, and will be undertaken regardless of revenue flows. As this new instrument evolves, it will become increasingly refined and sophisticated. The ideal toward which its development will be directed will be to make it a list of expenditure items that have expected net present values higher than any item not included.

Ministries, in preparing their annual budgets, will thus have strong incentive to select activities that qualify for inclusion in the CDB. This, in turn, will provide the motivation to develop their own capacity to undertake rigorous professional project development, analysis and implementation. As part of the Agriculture Sector Assistance Program, the Mission will provide assistance to the Ministry of Agriculture to develop the institutional capacity to qualify projects for a significant share of the CDB.

Although the sector-specific support will not be used to finance specific projects, it will constitute an additional annual resource to the GOG's agricultural budget to carry out activities in the six priority constraint areas discussed earlier. As actions are undertaken by selected public sector institutions, GOG local currency budgetary funds will be used to strengthen these institutions and expand their operations.

Strong candidates for budgetary support by priority areas and institutions to be improved include the following:

a. Irrigation

Because of the Mission strategy and GOG emphasis on irrigated, diversified agriculture and existing deficient public sector capabilities for efficiently designing and implementing medium and large irrigation projects, an emphasis will be placed on contracting the private sector to carry out the design, construction, and management of these systems. However, the expansion of irrigation for small farmers as well as the overall planning of the placement and management of systems in coordination with other existing or planned support activities (e.g., roads, electrification, markets, soil conservation) requires a strengthened Ministry of Agriculture irrigation coordination unit (DIRYA).

b. Farm Credit

Increased budgetary resources are required to facilitate a BANDESA administrative restructuring, decentralization of personnel and authority, expansion of services to small borrowers, an expanded credit recovery program, and computerization of operations.

c. Agricultural Research and Extension

ICTA needs greater budgetary allocations to hire and retain more qualified research technicians, carry out more extensive high-priority crop variety trials, and increase

integrated pest management research. With increased budgetary resources, DIGESA and DIGESEPE should increase audio-visual materials for farmer use, increase farmer training courses, and provide increased support to the Ministry of Agriculture's 3,700 grassroots extension workers (representantes agropecuarios).

d. Product Marketing and Processing

Expanded resources oriented toward marketing should be concentrated in private sector construction and operation of regional produce collection/grading/packing centers throughout the country, expanded on-farm basic grain storage facilities, implementation and enforcement of product and input grades and standards, strengthened farmer organizations for marketing, and market information systems. Some or all of these activities could be undertaken by a reorganized and strengthened INDECA in collaboration with the private sector.

e. Natural Resource Management

In order to provide increased support to soil conservation and environmental control activities, additional budgetary support should be provided to DIGESA. The National Forestry Institute (INAFOR) should also be restructured and strengthened in order to improve its reforestation, forest management, and agroforestry services to the private sector, as well as oversee the implementation of the proposed forestry law.

Permeating this organizational strengthening of public agriculture sector institutions to accelerate program and budget execution is the need to decentralize the Ministry of Agriculture's planning and implementation activities. Toward this end, support should be focussed on strengthening the regionalization of BANDESA, INDECA, INAFOR, USPADA (the Ministry of Agriculture's Sector Planning Office), and the regional (COREDA) and sub-regional (COSUREDA) Ministry of Agriculture's coordinating bodies. This will assure bottom-up planning, more accurate and timely statistics, local "ownership" of projects and programs according to local needs, and increased accountability for project implementation and monitoring. In order to achieve this regionalization, a manpower/training needs assessment should be undertaken to identify numbers and types of technicians needed, logistical support required, and training necessary to improve public sector technicians' capabilities in key areas.

C. Other Donors

In order to maximize its impact on agricultural development and obtain the greatest leverage possible from its funds, the Mission has and will continue to collaborate very closely with programs/projects undertaken with financing from other international lending institutions. The most obvious example of this collaboration is the use of PL 480 Title I local currencies by the GOG to fulfill its financing requirements with other donors, subsequently facilitating project implementation and achieving desired leverage of A.I.D. funds. Specifically, local currencies have been used to provide GOG counterpart to the Interamerican Development Bank's (IDB) Animal Health Project (PRODESA), while also enabling the GOG to rehabilitate several irrigation systems thereby fulfilling a precondition to the upcoming IDB loan for irrigation and drainage for $10.6 million. Due to the favorable experience of the leverage obtained through the use of local currency, this mechanism will continue to be employed during the strategy period.

In addition to USAID/Guatemala, other principal donors participating in agricultural development in Guatemala are AID/ROCAP, IDB, the Central American Bank for Economic Integration (CABEI), the European Economic Community (EEC), and the Interamerican Institute for Cooperation in Agriculture (IICA). The World Bank has not been active in Guatemala since the late 1970s, the Organization of American States (OAS) provides its limited assistance principally through IICA, and FAO/UNDP is providing technical assistance to USPADA in agricultural planning and project identification. The World Food Program (WFP) also provides considerable food aid assistance to Guatemala. Very recently bilateral assistance has increased considerably in agricultural/rural development through the German Food Assistance Program (COGAAT) and the Japanese and Italian governments.

1. AID/ROCAP

The stated goal of the ROCAP agricultural strategy for Central America and Panama is to increase agricultural production and exports and improve environmental and natural resource management. Its program strategy is the following:

- promote policies conducive to agricultural development
- increase agricultural productivity
- upgrade professional/subprofessional agricultural staff

- encourage development of effective national land markets
- encourage wise use of natural resources
- improve private sector participation in nontraditional export markets
- increase capital availability to producers in the sector.

In order to carry out this program strategy, ROCAP is implementing a wide array of regional agricultural/rural development projects (See Table 1.) which have an impact on USAID/Guatemala and GOG activities. In summary, it has three projects for increased agricultural production (for a total of $20.25 million), three projects for promoting exports (for a total of $29.8 million), and two projects for preservation and management of natural resources (for a total of $15.0 million). The Mission has accessed every one of these projects for some type of assistance (training, technical assistance, etc.). ROCAP's physical presence in the same building as USAID/Guatemala has facilitated continuous collaboration and dialogue. The two Missions share strategies, Action Plans, and even technical personnel as convenient. USAID/Guatemala considers ROCAP presence and funding to be complementary to its efforts, and will continue to closely coordinate its activities with those of ROCAP during the strategy period in order to leverage its resources to the maximum.

2. IDB

In the area of agricultural development, the IDB's primary emphasis is on providing support to the Guatemalan public agriculture sector. Historically, the Bank has been the largest international donor; during the period 1976-1986 it provided a total of $97 million as compared to A.I.D.'s $67 million. Presently, the IDB is implementing the following projects:

- Animal Health (PRODESA) for $20 million
- Guatemala City Agricultural Wholesale Market (CENMA) for $20.5 million
- Technology Development, Transfer and Seed Multiplication (PROGETTAPS) for $13.9 million
- Agricultural Credit through the private banking system for $40 million

In addition to these projects, the Bank is discussing with the GOG the possibility of undertaking a number of new

interventions, including: agricultural credit through BANDESA ($40 million), irrigation ($10.6 million), livestock ($36 million), fisheries ($14 million), Chixoy watershed management ($18 million), and a restructuring/strengthening of the public agricultural sector ($90 million), all of which were identified by an IDB Programming Mission in early 1987. As expressed earlier, considerable amounts of PL 480 Title I local currency have been/will be used by the GOG to achieve project agreements and implementation. After almost four years of negotiating with the GOG, the Bank will undertake a detailed agriculture sector analysis in 1988 through USPADA which will permit it and the GOG to identify constraints, evaluate policies and strategies, and prepare a series of project and program interventions, as well as institutional strengthening of the sector. The Mission will collaborate closely with the IDB in this effort, providing the analysis team with its Agriculture Sector Review, this Agriculture Sector Development Strategy, the latest Action Plans and ESF PAAD's, and background data and experience of the Mission. It is expected that A.I.D. and IDB interests in strengthening the public agriculture sector will be wholly convergent based on close collaboration, and that the Bank's efforts will complement those already being initiated by the Mission under the 1988 ESF agreement.

3. CABEI

The Central American Bank for Economic Integration receives considerable quantities of seed capital from A.I.D., the United Nations Development Program (UNDP), and other international donors, as well as capital contributions from its own members. Its activities in Guatemala are oriented principally toward the restructuring of credit policies with a concentration in rural agroenterprises. Presently, it is providing financing through the following four Guatemalan and/or Central American programs:

- reorientation of credit policies
- establishment of a Regional Fund for Development Cooperation
- PRALC IV which includes plant protection and maintenance of irrigation and drainage systems
- rural access roads

4. EEC

The European Economic Community, through its CADESCA (Comité de Acción para el Desarrollo Económico y Social de Centro América) program, is providing support to a Central American food security program. It finances preinvestment

studies which are developed into project proposals to be funded by other international donors. The EEC is presently sponsering five region-wide programs:

- o system for food and nutrition surveillance through INCAP
- o system for estimating crop production, yields and costs
- o marketing, especially basic grains
- o credit to small producers
- o agricultural research, extension, and training

Specifically in Guatemala, the EEC is providing $13 million for rural integrated development of a large coffee farm run by its small-farmer owners (Chocola), as well as funding housing for beneficiaries of several farms redistributed through the GOG's land purchase/sale program.

5. IICA

The Interamerican Institute for Cooperation in Agriculture has defined the following five areas as priority for its support:

- o technology development and transfer
- o marketing and agroindustry
- o rural development
- o plant and animal health
- o planning and analysis of agricultural policies

In addition to its own funds provided by its member countries, IICA maintains contract relationships for project/program implementation with A.I.D., IDB, UNDP and other international donors. Presently, IICA is providing technical support to the following projects:

- o improvement in production systems for dual-purpose cattle (dairy and beef)
- o technical training for farmer organizations and public sector employees
- o strengthening of a system to prepare and analyze agricultural policy
- o institutional strengthening under the IDB Animal Health project
- o control of coffee insects through ANACAFE/PROMECAFE
- o strengthening DIGESA's plant protection program

- o support to the Ministry of Agriculture's Office of Emergency Projects
- o regional Trifinio Project
- o support to the regional agriculture ministries and their planning offices through CORECA.

As can be observed from the above detail, the many project and program interventions undertaken by multiple international donors require constant donor coordination and collaboration. Although the Mission's Office of Rural Development technicians maintain frequent contact with the above donors, perhaps a more effective mechanism would be the establishment of a formal sector coordinating committee composed of the various interested donors.

D. Proposed Funding

As indicated in the Summary Overview, the Mission's Agriculture Sector Development Strategy will be implemented with approximately $200 million of tightly integrated DA, ESF and PL 480 funding over the five-year strategy period, or about $40 million annually. The following table describes the breakdown among funding sources by year, with specific project interventions highlighted.

PROPOSED FUNDING FOR THE AGRICULTURE SECTOR DEVELOPMENT STRATEGY (FY 1988-FY 1992)

Activities	FY1988	FY1989	FY1990	FY1991	FY1992
A. Projects					
Highlands Agricultural Development (0274)	4.0	4.0	4.0	-	-
Agribusiness Development (0276) (CLUSA contract)	1.0	-	-	3.0	5.0
Farm-to-Market Roads (0332)	3.5	3.5	2.2	-	-
Private Sector Development Coordination (0337)	0.5	-	-	-	-
Commercial Land Markets II (0343)	0.5	-	-	-	-
Rural Electrification III (0353)	3.8	3.4	2.7	-	-
Ag. Production and Marketing (0363)	0.3	0.6	0.4	-	-
Technification of Traditional Export Crops (0381)	-	1.5	4.0	3.5	-
Watershed Management	-	-	-	7.0	9.0
Subtotal	13.6	13.0	13.3	13.5	14.0
B. PL480 Title I					
(soil conservation, irrigation, forestry, farm credit)	10.0	11.0	12.0	12.0	12.0
C. ESF					
(storage/processing, rural roads, electrification, education/training, institutional support)	12.0	14.0	16.0	16.0	16.0
TOTAL	35.6	38.0	41.3	41.5	42.0

VI. SPECIAL CONCERNS

The following is a more in-depth discussion of some issues which require special attention.

A. Land Distribution and Use

Land distribution and use has been identified as one of the principal structural deficiencies (see page 10) to Guatemalan rural development. The degree of skewedness is described in more detail in Annex A (page A-4), with tenure insecurity acting as a deterrent to investment. This skewed distribution inhibits development efforts in three principal ways.

First, it contributes to rural poverty, since the majority of the rural population does not have access to the land resources necessary to extract even a subsistence level of living from agriculture. This situation is exacerbated by a high rate of population growth (3 percent per annum), the lack of rural employment alternatives, and an increasing sub-division of small plots among land-poor farmers. This poverty does not permit producers to invest in productivity-enhancing technology in order to generate a surplus.

Second, skewed distribution affects land use patterns, contributing to underutilization of prime agricultural land and to degradation of fragile hillside and tropical lands. Intensive cultivation of marginal hillside lands by smallholders, coupled with lack of investment and technical assistance, has contributed to deforestation and soil erosion, thereby deepening the cycle of poverty while destroying the country's natural resource base.

Third, excessively skewed distribution is a constraint to development because of its social and political consequences. As stated in the Kissinger Commission Report, landlessness and the resulting inequitable distribution of the benefits of growth contribute to an atmosphere of civil and political unrest often leading to demagoguery and class conflict. The violent clashes of the 1960s, 1970s and 1980s in rural Guatemala are a graphic illustration. This situation creates an atmosphere of insecurity which directly affects both large farmer and smallholder investment and on-farm improvements.

Given this situation, a description of the GOG and Mission interventions in land distribution and use is important to determine the adequacy of the Mission's response.

The agrarian policy stated by the Ministry of Agriculture in December 1986 defined the land constraint in terms of the need to promote more efficient use of land and other factors of production. While recognizing that the existing land distribution pattern contributes to underutilization, the government affirmed that expropriation of land would not occur. Instead land taxes, colonization, and land market activities would be promoted to address the land problem.

All parties in Guatemala seem to agree that expropriation is not a viable option for dealing with skewed land distribution. The history of failed reforms coupled with violence and bloodshed in rural areas have forced the government, landowners, and campesinos to seek other solutions. The approach which is advocated within the government, and by the campesino movement and some large landowners, is the broadening of the land market to allow campesinos to purchase land. Although there are differences of opinion as to how the farms should be purchased and how the farming units should be organized for and by smallholders, there appears to be consensus about the need to develop mechanisms to make land which is abandoned, underutilized or simply for sale on the market, available for purchase by the landless and land-poor.

Understanding these political and social sensitivities and the expressed consensus for peaceful land redistribution, the Mission initiated in 1984 a pilot land market program with the Penny Foundation, which has developed and tested one model for achieving the distribution of agricultural land through the land market. The Foundation purchases large farms on the open market, surveys and divides the farm into family-size plots (an average of 2.8 has.) which are then resold to landless or land-poor households as individual owners with 10-year mortgages. Between 1985 and 1987, as a pilot project with $3 million of USAID funding, twenty farms were purchased and 1,223 family-sized plots were created for resale to landless families.

In June 1987, the Mission expanded the present project with $8.0 million in additional funds through 1992. The structure and goal of the project are unchanged from the pilot stage. The purpose of this additional funding, however, is not only to extend the land purchase-sale activities for another five years, but also to establish this program as self-supporting, capable of continuing to purchase and sell land indefinitely. In addition, while the Mission does not envision funding the Penny Foundation program after 1992, this project should lay the groundwork for additional land market related activities in the future through a $750,000 research component which will identify additional land-related constraints.

The absolute impact of the Penny Foundation project on the problem of landlessness in Guatemala and on the skewed distribution of agricultural land is very limited. The most recent estimates (1982) show approximately 400,000 landless people in rural Guatemala. Under the expanded Land Markets Project, the Penny Foundation will purchase up to 1,350 has. yearly, benefitting 400 to 500 households (2,400 to 3,000 people) per year.

The impact of this project lies elsewhere. First, and most importantly, it establishes a permanent and unique private sector mechanism through which landless and land-poor campesinos, who work as agriculturalists but who have very limited financial and technical resources, can borrow money to purchase land, with guaranteed access to production credit and technical assistance to become commercial farmers. To meet this goal of establishing a permanent (and sustainable) program, the USAID project includes funding for technical assistance and training in management, financing and information systems for Penny Foundation staff.

Second, this program is important as both a model and an alternative approach to the government land purchase-sale program. In 1987, the GOG Land Commission purchased 9 large farms, creating 11 projects for 8,350 beneficiaries. Under this program -- which is supposed to be expanded in 1988 -- the farms, which were either purchased or were being held on default by BANDESA, were turned over to campesino organizations to be titled and farmed as farmer corporations (empresas asociativas). This model of group ownership for campesino producers is required by law for farms managed by INTA (National Institute of Agrarian Transformation), and is widely supported in Guatemala.

The land distribution constraint in Guatemala is massive. To the extent that political considerations preclude massive solutions, opening and stimulating the land market to those previously excluded is the most viable option for reform. The goal of increasing access to land purchase, at least in the initial stages, may be accomplished best through the testing of a number of alternative scenarios. The Penny Foundation program, as one avenue, serves a particular part of the rural population with particular needs. In this way, the government and private sector programs may be seen as complementary, but not conflicting, means to the same goal.

B. The National Agricultural Development Bank (BANDESA)

Considerable polemic has surrounded BANDESA as the principal financial mechanism for smallholder and cooperative lending in rural areas. In order to put into perspective the Mission's relationship to the Bank, the following background is necessary.

BANDESA is the government's financial institution for channeling public sector credit to the agriculture sector of the country. It was created in December 1970 as the result of the consolidation of three state credit institutions -- the National Agrarian Bank (BNA), the Production Development Institute (INFOP), and the Inter-American Cooperative Supervised Credit Service (SCICAS).

BANDESA has features of both a development and a commercial bank. However, the focus of its operations has been to provide financing to small and medium-sized farmers who traditionally have lacked access to the private banking system. Although the Bank captures substantial savings through its widespread rural agency network, these resources are not relent to small farmers due to legal collateral restrictions and the perceived high risks involved in such lending. Small and medium-scale farmer lending is financed primarily with external funding obtained from international donor agencies (e.g., A.I.D., IDB). These donor institutions have financed the creation of trust accounts (fideicomisos) in support of specific project initiatives. Currently, BANDESA manages twenty-two such trust funds which target financing for three specific activities: (1) agriculture and livestock, (2) rural housing (particularly following the 1976 earthquake), and (3) rural artisanry and small industry.

Given BANDESA's mandate to meet the credit needs of A.I.D.'s traditional clientele, the Mission has channeled more than $42 million in loan funds through the Bank since 1970 for onlending to small and medium-sized farmers. A.I.D. success in utilizing BANDESA to support project initiatives has been mixed. The inefficiencies in its operating procedures, the continued operating losses and resultant decapitalization, and the increasing delinquency in its portfolio have forced the Mission to reevaluate its continued reliance on the Bank.

The reevaluation process began in late 1984 when the Mission contracted Ohio State University to complete an in-depth analysis of the Bank. The analysis concluded that:

- BANDESA is the main source of financing for approximately 30,000 small and medium-sized farmers, many of whom lack traditional collateral and who would not have access to any other source of credit at reasonable rates.

- The Bank has an extensive infrastructure spread throughout the country, providing its services through eight district offices, thirty-seven agencies and thirty-two cajas rurales. The Bank has approximately 1,200 employees, but 47% are located in the central

office and there has been little effective effort to decentralize decision-making authority.

- The multitude of trust funds being administered by the Bank has permitted it to increase its services to small farmers in the Highlands (viewed as higher risk lending), while simultaneously directing its limited commercial funds at the more traditionally commercial regions of the country (i.e., the South Coast) and to larger farming and ranching operations.

- The BANDESA credit portfolio is heavily weighted in favor of the agriculture sector (e.g., four-fifths of total loans are for crop production). However, in recent years BANDESA's relative position in agricultural lending has declined. In addition, although the number of loans is substantial and average loan size is small (indicating a concentration with small to medium-sized farmers), the total number of borrowers served by the Bank has not increased significantly since 1977.

- BANDESA suffers high deliquency in its loan portfolio, and particularly in the lending of its own funds. In 1983 it was estimated that approximately 80% of the portfolio was in arrears, and more seriously, a majority of the delinquent payments were more than one-year past due. This delinquent portfolio has immobilized much of BANDESA's depositor-generated loan capital and severely restricted the Bank's ability to lend from this source. Although the delinquency in its trust fund lending is not as severe, it is still substantial. In late 1983, approximately 25% of the total number of loans outstanding were past due, a figure which represents 51% of total loan volume.

- BANDESA has been the principal source of cooperative credit in the country since 1970. However, due to increasing delinquency in this portion of the portfolio, the Bank has begun to severely restrict such lending. The Bank has modified traditional cooperative lending policy and introduced a practice of requiring all member beneficiaries to cosign for a cooperative loan. This group lending methodology has resulted in improved loan repayment from cooperatives.

In January 1986 new management of the Bank was appointed by the newly elected Cerezo administration. Its first action was to critically review the past and present situation of the Bank, make recommendations for its improvement, and develop a short and medium-term plan of action

which would form an integral part of the Ministry of Agriculture's development strategy. The resulting document (La Situación Actual y Perspectivas de BANDESA) identified essentially the same problems as the Ladman/Torrico study. The document did not express anything new, but was important because of the new government's public recognition of the problems of BANDESA and its desire to find short- and medium-range solutions to these problems.

In early 1987 the Mission again reviewed BANDESA's situation and summarized the continuing problems as follows:

- The Bank is still overly centralized with the result that it does not take full advantage of its widespread rural network of regional offices and cajas rurales.

- Insufficient numbers of trained technical personnel (e.g., managers and analysts) are available to process loan applications. In 1986, only 96 of the 1,094 employees of the Bank were classified as "technical personnel".

- The Bank is overly bureaucratic, paperwork is excessive, and the procedures for loan submission through analysis and final approval have increased processing costs, inflated Bank overhead, slowed or delayed loan analyses, and frequently resulted in untimely disbursement of loans.

- Few procedural guidelines exist to guide Bank personnel in determining the documentation requirements for a specific loan application. This contributes to long processing delays and arbitrary interpretation of credit policies and documentation requirements.

- Credit policies and loan repayment analyses frequently have no relationship to cash flow projections and potential return. Many borrowers have been provided loans under terms which will likely lead to default. The inability of Bank personnel to recognize the differences between short-term production and medium-term investment credit has led both individuals and cooperatives to assume loan repayment obligations that are unrealistic and inconsistent with their ability to repay.

- There is little supervision of borrowers and insufficient emphasis upon loan collection. Bank personnel appear to be overly concerned with the application process; however, once a loan has been disbursed, little loan monitoring takes place and inadequate efforts are made to collect.

- There is little coordination between Bank lending and the provision of agricultural technical assistance from other public sector institutions. Small-scale producers have very limited access to technical support from the Ministry of Agriculture which could improve their repayment capabilities.

Given this plethora of problems, the question arises as to the viability of continuing to channel A.I.D. funds through the Bank. Mission assistance has been a key element in supporting the following progress made by the Bank in resolving the problems identified above:

- the Guatemalan Public Administration Institute (INAP) has analyzed BANDESA's banking services and administrative structure and made recommendations for improvements;

- a statistical analysis and detailed list of delinquent debts have been prepared and are being used to intensify debt collection and/or write off;

- an internal analysis of the physical locations and corresponding financial operations of the Bank's regional and local branch offices has been prepared to determine the feasibility of relocating Bank personnel to decentralized operations;

- an in-depth analysis of the Bank's existing loan portfolio with cooperatives is being undertaken in order to determine the restructuring of these loans and the reactivation of the rural cooperative movement;

- The Bank's regional approval authority has been raised from Q5,000 to Q15,000, on individual loans and up to Q30,000 for group lending, legal documentation requirements and borrower transaction costs have been reduced substantially, and collateral requirements have been made more flexible, with a focus on crop liens and informal group lending;

- interest rates on trust funds were increased and standardized at 10%, simplifying loan analysis and generating greater income to cover operating overhead;

- a national promotion campaign of BANDESA's services has been undertaken to increase the Bank's clientele;

- o a working group of BANDESA and USAID technicians is meeting regularly to determine how to accelerate disbursements of agricultural credits under four USAID projects; to date, BANDESA support of the working group process has been very positive, demonstrating the Bank's intentions to resolve the pipeline problem;

- o current Bank management has stated its intent to continue to decentralize operations, recover the delinquent loan portfolio, and promote the use of more effective lending criteria;

- o with Bank assistance, a reprogramming of the Highlands Agricultural Development Project (0274) will permit the use of project resources to finance the procurement of computer systems, vehicles and office equipment to improve BANDESA's operating efficiency;

- o a reorientation of the other three USAID loan programs through the Bank will permit greater use of funds for technical assistance and training to achieve improved efficiency and decentralization of activities.

Given this progress and the expressed interest of BANDESA management in improving Bank operations, the Mission believes that with certain elemental changes and additional technical assistance and training, BANDESA can continue to serve as a good mechanism for delivering development credits to the rural target population, especially to individual borrowers, through its existing rural infrastructure (37 regional and 32 local branch offices), its decentralized operations (99% or all trust fund loans made by BANDESA in 1983 were approved at the regional or local level) and its targeted trust fund lending operations (almost 50 percent of all loans are located in the Highlands.)

The group/cooperative lending process will have to be considerably improved, and this is where most of USAID's assistance will be concentrated over the next several years. Simultaneously, the Mission will be testing other financial institutions for delivery of credit to the rural areas, such as cooperative federations, private foundations, and the private banking system.

C. Environmental Enhancement

As early as 1975, the principal problems in managing the environment and natural resources were pointed out in the Plan Maestro de los Recursos Naturales de Guatemala and later refined in the Guatemalan Environmental Profile of 1984. These problems were:

- o rapid deforestation
- o accelerated soil erosion
- o inappropriate use of agrochemicals
- o environmental contamination (air, water, soil, food)
- o lack of watershed management and rational water use
- o insufficient conservation of wildlands and loss of biological diversity
- o inadequate marine and coastal resource management (overfishing, habitat destruction)
- o degradation of energy resources
- o improper land use and insufficient land use control (overutilization of marginal lands)

The Profile insisted that an environmental policy should be based on a balance between environmental protection and basic human needs while increasing public awareness of the urgent need for environmental management. It recommended the following steps be taken:

- o develop the forestry sector, control deforestation
- o create new wildlands
- o expand soil conservation and watershed management
- o establish a national program for wildlife management
- o initiate an integrated pest management program
- o promote the use of new and renewable energy sources
- o pass environmental protection legislation

In recognition of these environmental problems, AID/ROCAP has provided assistance to Central American countries through its Integrated Pest Management, Watershed Management, and Fuelwood projects. The Mission has continually called upon technicians within these projects to assist in the preparation and implementation of environmental enhancement activities. Soil conservation has been a principal activity of the Mission since 1979, while reforestation was initiated in 1983. An integrated pest management activity will be initiated in 1988 as part of the Mission's crop diversification emphasis, stressing minimum use of approved pesticides, better agrochemical management, and greater biological control. Soil conservation, forestry and watershed management, and environmental legislation (water use law, forestry law, environmental protection law) also will be emphasized during the strategy period.

Due to increased concern about environmental contamination from the excesive/inappropriate use of agrochemicals, in FY 1988 the Mission initiated an analysis of pesticide use in all of its existing projects. Additionally, an environmental assessment of the impacts of spraying malathion under the

Mediterrean Fruit Fly Eradication Program was initiated in January 1988 under the leadership and financing of the Mission. The results of this analysis will be available in July 1988 and will provide guidance not only to Guatemala but to all of Central America on future Medfly activities. In order to strengthen Guatemalan capabilities and participation in environmental management issues, the Guatemalan National Commision on the Environment has been invited to participate in the Medfly environmental assessment and in any upcoming related Mission activities.

In order to better define an environmental enhancement policy for the Mission, especially in those areas not presently targeted, an IQC contractor will initiate a study in March 1988, with the appropriate Mission response being prepared by late 1988 taking into account Guatemalan development priorities, available funding, and other donor activities.

D. Food Security

Although the Mission will not be providing any new direct assistance to basic grain production (corn, beans, wheat, rice) during the strategy period, it does recognize the importance which the GOG places on food security. Basic grain yields in Guatemala are among the lowest in Central America and overall output is not keeping pace with the country's rapid population growth. Farmers in transition from subsistence to commercial agriculture move from the practice of feeding their families by growing traditional subsistence crops to purchasing these products with higher incomes and greater market participation generated by crop diversification. A number of factors are important in achieving this transition: higher incomes of rural poor, availability of basic grains, price incentives to increase production of these grains, and improved technologies to increase yields.

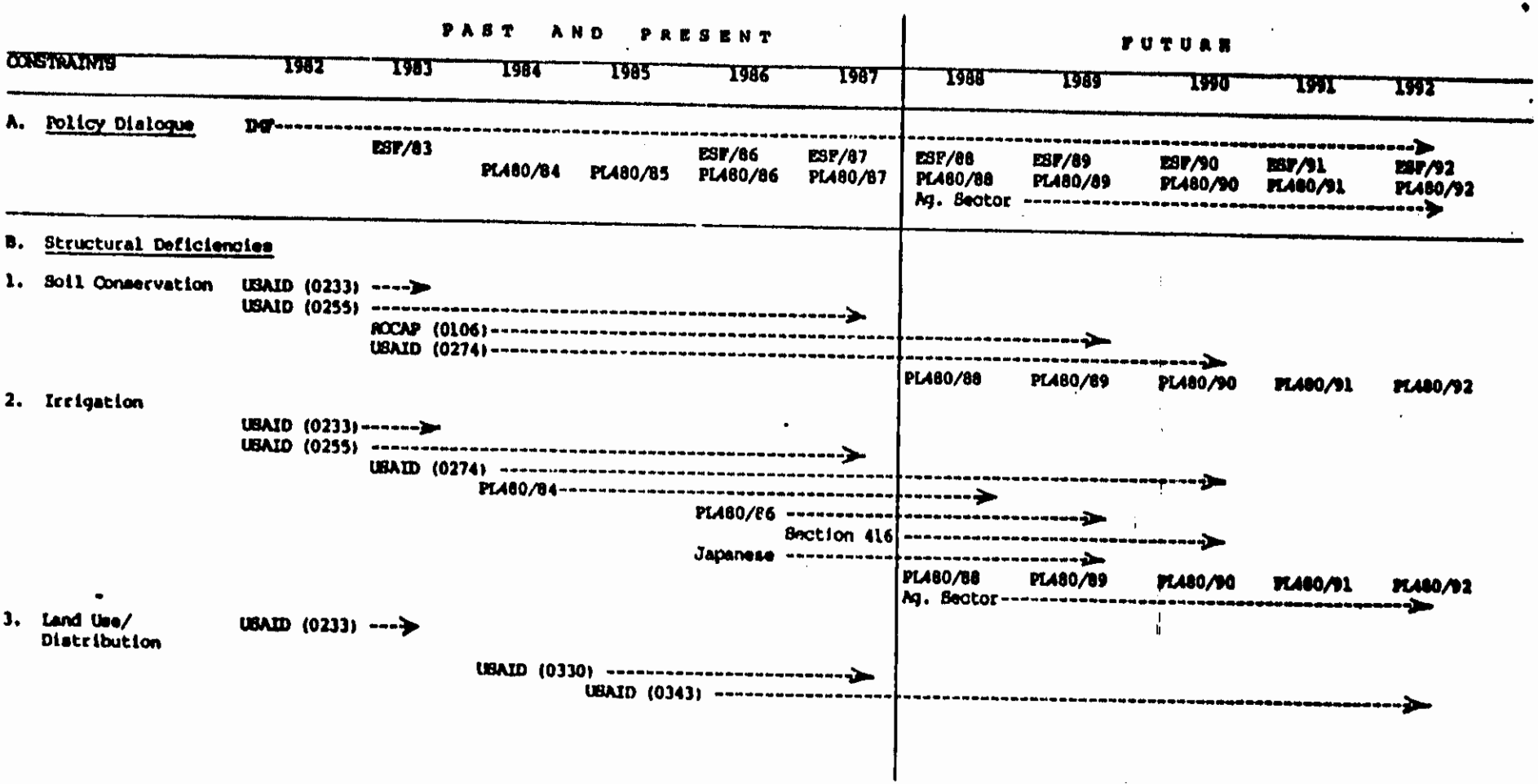
In spite of the potential seriousness of this problem, the Mission believes that food security need not be of major concern if long-term structural and institutional adjustments are made in agriculture. The long-term cropping adjustment to assure food security would be achieved by moving grain production out of the Highlands to the South Coast where three crops of corn can be produced annually instead of one. Improved marketing linkages could then facilitate the distribution of basic grains to the vegetable-producing Highlands and to the capital city, where the demand for human consumption is the greatest. Larger quantities of corn and sorghum production would also provide feed grains to the latent livestock subsector. In fact, a linkage to a livestock promotion program (especially hogs and dairy cows) could create

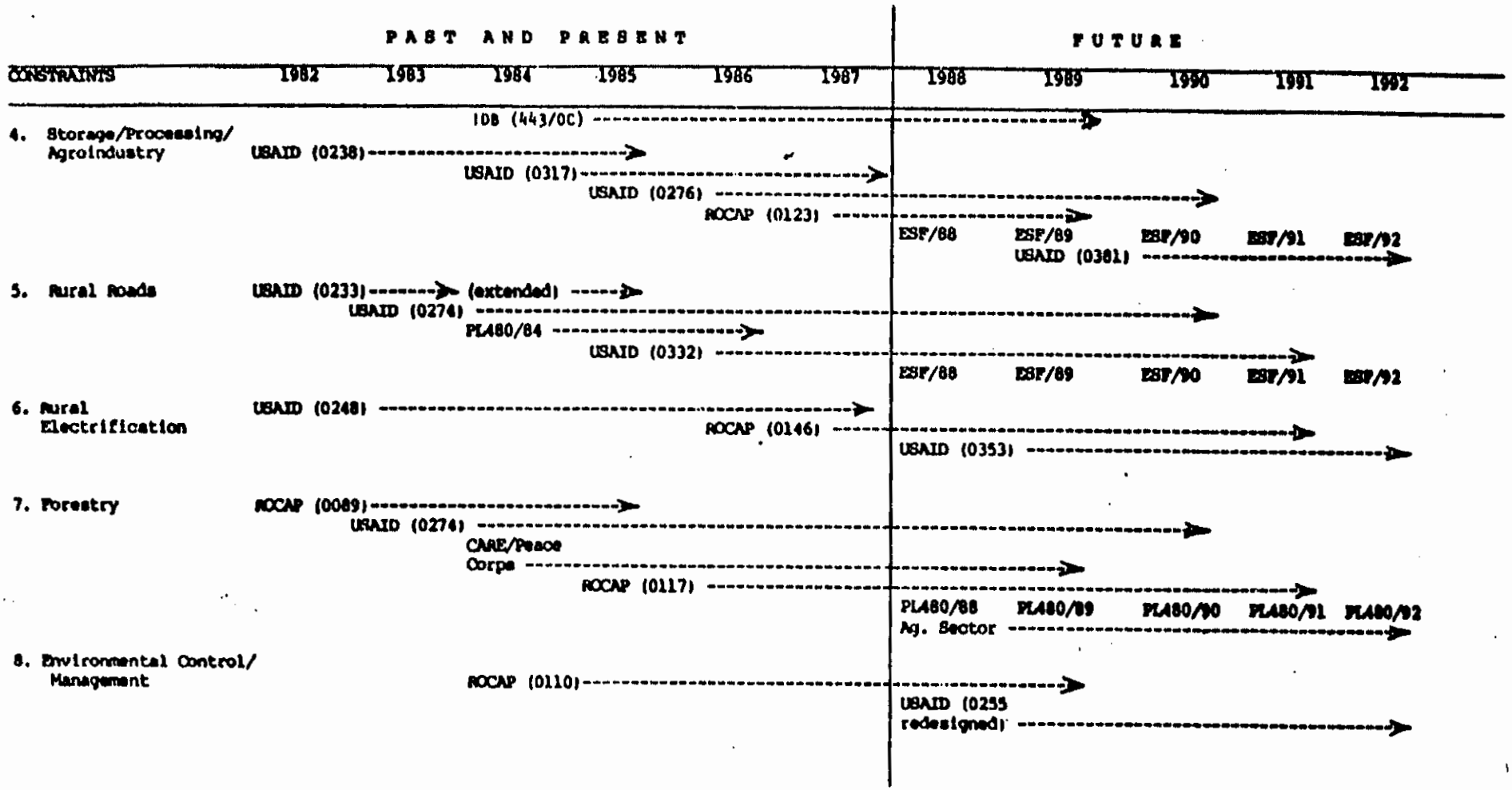
increased demand for basic grains, thereby increasing prices, one of the most important factors in increasing production of these commodities on the South Coast. Simultaneously, livestock would be available for both domestic and export markets.

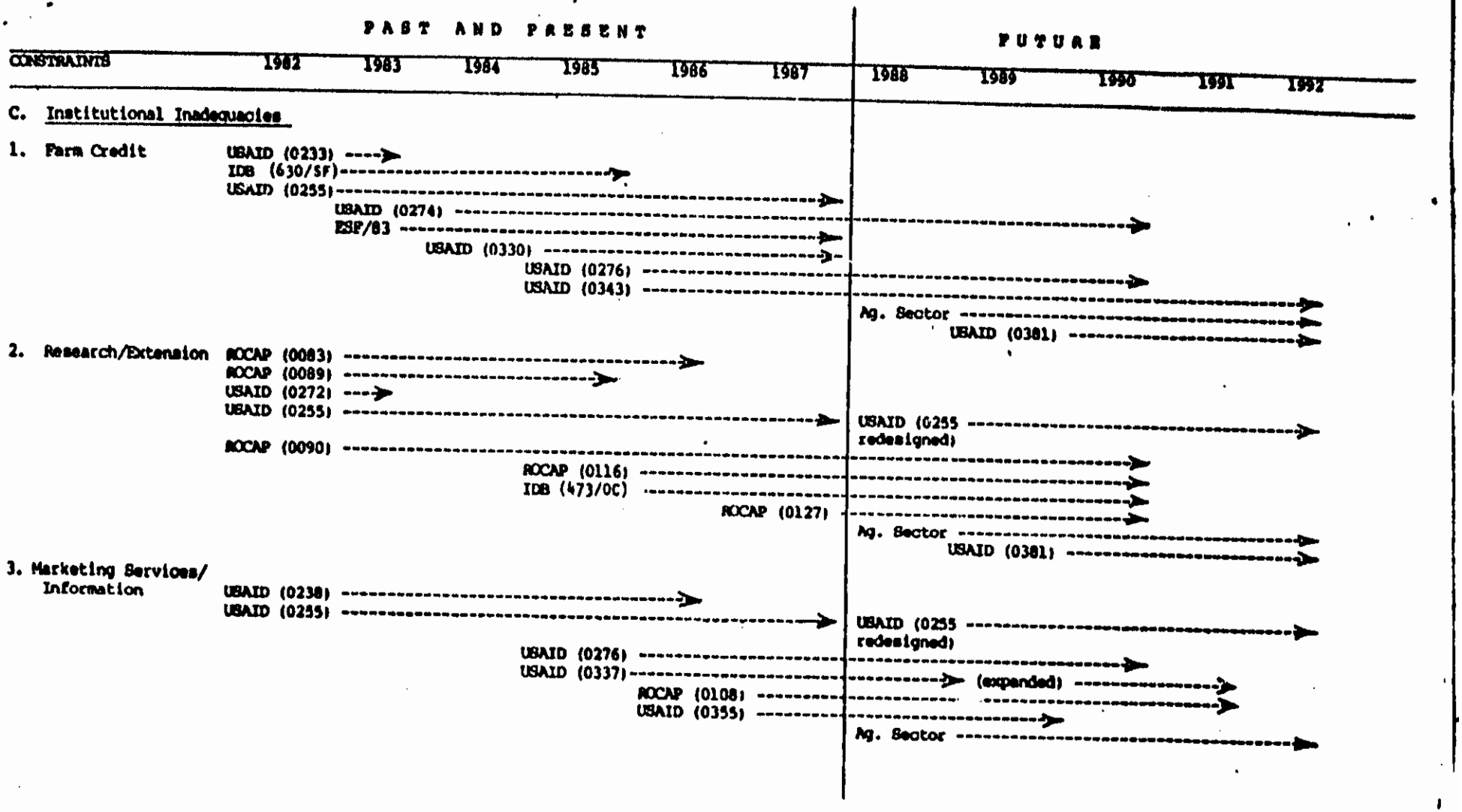
Presently, the Mission's Dairy Development Project is working with corn as it relates to animal feed while the Agribusiness Development Project is investigating the possibility of supporting a Highland cooperative in establishing a feed mill operation. As part of the agricultural policy dialogue agenda, the Mission is discussing with the GOG the role of INDECA in agricultural marketing, especially as related to basic grains and export crops. Combined with the CADESCA Central American food security program mentioned earlier and structural adjustments occuring naturally from crop diversification, Guatemala's basic grain situation should stabilize over the longer run.

TABLES

PAST, PRESENT AND FUTURE INTERVENTIONS OF INTERNATIONAL DONORS IN RURAL DEVELOPMENT IN GUATEMALA




PAST AND PRESENT
FUTURE
CONSTRAINTS
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
IDB (443/OC)
4. Storage/Processing/ Agroindustry
USAID (0238)
USAID (0317)
USAID (0276)
ROCAP (0123)
ESF/88
ESF/89
ESF/90
ESF/91
ESF/92
USAID (0381)
5. Rural Roads
USAID (0233)
(extended)
USAID (0274)
PL480/84
USAID (0332)
ESF/88
ESF/89
ESF/90
ESF/91
ESF/92
6. Rural Electrification
USAID (0248)
ROCAP (0146)
USAID (0353)
7. Forestry
ROCAP (0089)
USAID (0274)
CARE/Peace Corps
ROCAP (0117)
PL480/88
PL480/89
PL480/90
PL480/91
PL480/92
Ag. Sector
8. Environmental Control/ Management
ROCAP (0110)
USAID (0255 redesigned)


PAST AND PRESENT
FUTURE
CONSTRAINTS
1982
1983
1984
1985
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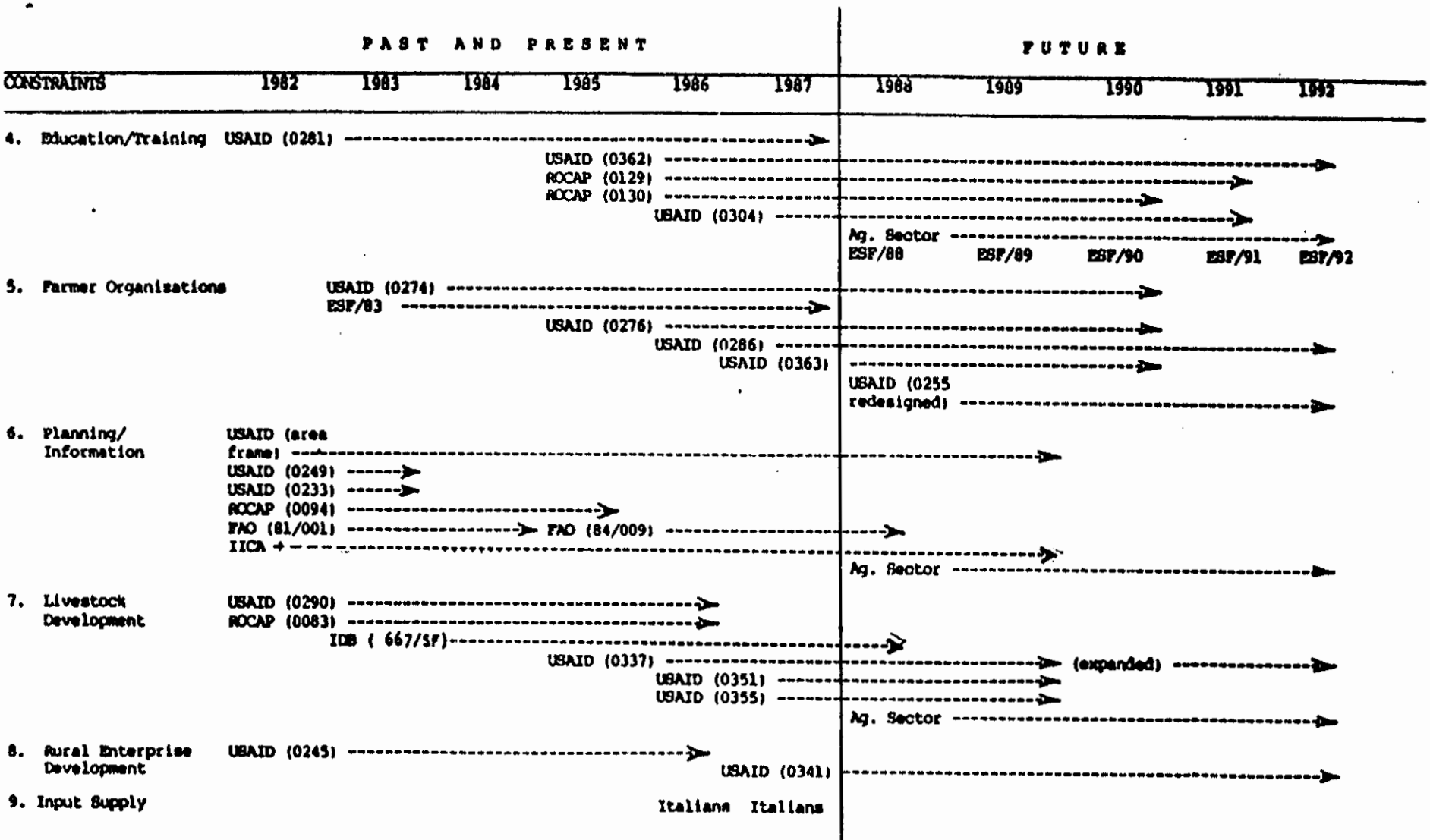
1987
1988
1989
1990
1991
1992
C. Institutional Inadequacies
1. Farm Credit
USAID (0233)
IDB (630/SF)
USAID (0255)
USAID (0274)
ESF/83
USAID (0330)
USAID (0276)
USAID (0343)
Ag. Sector
USAID (0381)
2. Research/Extension
ROCAP (0083)
ROCAP (0089)
USAID (0272)
USAID (0255)
USAID (0255 redesigned)
ROCAP (0090)
ROCAP (0116)
IDB (473/OC)
ROCAP (0127)
Ag. Sector
USAID (0381)
3. Marketing Services/ Information
USAID (0238)
USAID (0255)
USAID (0255 redesigned)
USAID (0276)
USAID (0337)
(expanded)
ROCAP (0108)
USAID (0355)
Ag. Sector


PAST AND PRESENT
FUTURE
CONSTRAINTS
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
4. Education/Training
USAID (0281)
USAID (0362)
ROCAP (0129)
ROCAP (0130)
USAID (0304)
Ag. Sector
ESF/88
ESF/89
ESF/90
ESF/91
ESF/92
5. Farmer Organizations
USAID (0274)
ESF/83
USAID (0276)
USAID (0286)
USAID (0363)
USAID (0255
redesigned)
6. Planning/
Information
USAID (area
frame)
USAID (0249)
USAID (0233)
ROCAP (0094)
FAO (81/001)
FAO (84/009)
IICA
Ag. Sector
7. Livestock
Development
USAID (0290)
ROCAP (0083)
IDB (667/SF)
USAID (0337)
(expanded)
USAID (0351)
USAID (0355)
Ag. Sector
8. Rural Enterprise
Development
USAID (0245)
USAID (0341)
9. Input Supply
Italians
Italians

40808

Table 1 A. Project Numbers and Titles

USAID/Guatemala

0233	-	Small Farmer Development
0238	-	Small Farmer Marketing
0245	-	Rural Enterprise Development
0248	-	Rural Electrification II
0249	-	Integrated Area Development Studies
0255	-	Small Farmer Diversification Systems
0272	-	Integrated Rural Development (HOPE)
0274	-	Highlands Agricultural Development
0276	-	Agribusiness Development
0281	-	Non-Formal Education
0286	-	Cooperative Strengthening
0290	-	Family Fishponds I (CARE)
0304	-	Altiplano Higher Education
0317	-	Cardamom Cultivation/Commercialization (CARE)
0330	-	Pilot Commercial Land Market I (FUNDACEN)
0332	-	Farm-to-Market Access Roads
0337	-	Private Sector Development Coordination
0341	-	Private Enterprise Developent
0343	-	Pilot Commercial Land Market II (FUNDACEN)
0351	-	Family Fishponds II (CARE)
0353	-	Rural Electrification III
0355	-	Dairy Development (CLUSA)
0362	-	Central American Peace Scholarships (CAPS)
0363	-	Agricultural Production/Marketing Services (AIFLD)
0381	-	Technification of Traditional Export Crops

AID/ROCAP

0083	-	Small Farm Production Systems (CATIE)
0089	-	Fuelwood and Alternative Energy Sources (CATIE)
0090	-	Regional Coffee Pest Control (IICA)
0094	-	Agricultural Secretariat (IICA)
0106	-	Regional Tropical Watershed Mangement (CATIE)
0108	-	Non-Traditional Agricultural Export Support
0110	-	Regional Integrated Pest Management (CATIE)
0116	-	Technical Support to Food Assistance (INCAP)
0117	-	Tree Crop Production (CATIE)
0123	-	Export Agribusiness/Development Promotion (LAAD)
0127	-	Regional Agricultural Technology Network (CATIE, IICA)
0129	-	Regional Agricultural Higher Education (CATIE)
0130	-	Central American Peace Scholarships (CAPS)
0146	-	Regional Electrification

IDB

630/SF	-	Agricultural Credit Program
667/SF	-	Animal Health Program (PRODESA)
443/OC	-	Agricultural Wholesale Market (CENMA)
473/OC	-	Technology Development, Transfer and Seed Multiplication (PROGETTAPS)

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Table 2. GUATEMALA EXPORT VALUE, VOLUME AND PRICE BY MAJOR COMMODITY
(In millions of 1958 Quetzales)

COMMODITY	1983	1984	1985	1986 estimated	1987 projected	Percentage of total exports 1983	1984	1985	1986	1987 projected
Coffee										
Export Value	308.8	360.6	451.5	501.3	400.0	28.3	31.9	42.6	46.6	37.8
Volume (000 cwt)	2,583.8	2,842.2	4,041.1	2,949.7	3,000.0					
Unit Price per cwt	119.53	126.87	111.73	169.95	136.00					
Cotton										
Export Value	67.4	72.3	73.1	28.0	40.5	6.2	6.4	6.9	2.6	3.8
Volume (000 cwt)	1,208.8	1,154.1	1,253.6	800.0	900.0					
Unit Price per cwt	55.72	62.65	58.31	35.00	45.00					
Sugar										
Export Value	95.3	71.3	46.4	51.7	49.0	8.7	6.3	4.4	4.8	4.5
Volume (000 cwt)	8,540.6	6,090.6	6,158.2	7,961.8	7,000.0					
Unit Price per cwt	11.16	11.71	7.53	6.49	7.00					
Bananas										
Export Value	53.5	54.9	70.9	73.4	78.0	4.9	4.8	6.7	6.8	7.2
Volume (000 cwt)	5,429.3	5,709.6	7,062.6	7,331.5	7,800.0					
Unit Price per cwt	9.86	9.40	10.04	10.01	10.00					
Meat										
Export Value	15.6	12.7	10.0	5.3	7.0	1.4	1.1	1.0	0.5	0.7
Volume (000 cwt)	190.6	185.3	200.5	90.9	100.0					
Unit Price per cwt	81.77	68.47	49.88	58.31	70.00					
Cardamom										
Export Value	59.4	100.3	60.7	60.0	64.0	5.4	8.9	5.7	5.6	5.9
Volume (000 cwt)	170.4	160.2	144.4	150.0	160.0					
Unit Price per cwt	348.67	626.09	420.00	400.00	400.00					
Petroleum										
Export Value	60.0	34.0	11.9	26.1	34.0	5.5	3.0	1.1	2.4	3.1
Volume (000 barrels)	2,206.3	1,248.2	458.3	1,784.1	2,000.0					
Unit Price	27.21	27.24	26.00	14.60	17.00					
Exports to CACM										
Export Value	320.9	291.4	207.8	200.0	210.0	29.4	25.7	19.6	18.6	19.4
Other (Non-traditional)										
Export Value	110.8	134.7	127.4	130.0	190.0	10.2	11.9	12.0	12.1	17.6
TOTAL EXPORTS FOB	1,091.7	1,132.2	1,059.7	1,075.6	1,080.5	100.0	100.0	100.0	100.0	100.0
Traditional Exports as % of Total Exports						54.9	59.4	67.3	66.9	59.9

SOURCE: Banco de Guatemala

Table 3. STRUCTURE OF GUATEMALAN AGRICULTURAL GROSS DOMESTIC PRODUCT BY SUBSECTOR
(In percentages)

Products	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
TOTAL PRODUCTION	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TRADITIONAL EXPORT CROPS	34.8	30.1	37.5	38.4	37.5	30.1	39.5	38.4	36.2	35.7	36.0	36.1
Coffee	22.0	20.7	17.5	17.6	17.3	18.0	18.4	18.6	18.8	19.1	19.7	18.8
Cotton	6.0	8.4	8.5	10.3	10.8	11.2	10.1	8.1	5.0	4.4	4.4	4.9
Bananas	3.4	3.8	4.6	3.8	4.1	3.7	4.8	4.8	5.1	3.8	3.3	4.6
Sugar	2.7	4.3	6.0	5.6	4.3	3.7	4.0	4.7	5.5	4.9	4.9	4.9
Cardamom	0.7	0.9	0.9	1.1	1.0	1.5	2.2	2.2	1.8	3.5	3.2	2.9
BASIC FOOD CROPS	13.9	12.5	11.1	10.0	10.9	10.6	8.5	9.2	10.5	10.2	11.2	11.1
Corn	7.4	6.5	5.7	5.1	5.7	5.0	5.7	5.9	6.6	6.3	7.1	6.9
Beans	5.2	4.3	4.1	3.6	3.8	3.4	1.5	2.0	2.5	2.4	2.6	2.9
Rice	0.5	0.8	0.4	0.4	0.4	0.5	0.6	0.5	0.7	0.7	0.6	0.6
Wheat	0.8	0.9	0.9	0.9	1.0	0.9	0.7	0.8	0.7	0.8	0.9	0.7
Sorghum	-	-	-	-	-	-	-	-	-	-	-	-
NON-TRADITIONAL EXPORT CROPS	16.2	16.7	18.3	18.7	17.6	17.0	18.5	19.1	19.5	19.5	18.9	19.0
Vegetables	4.0	3.4	3.4	3.4	3.4	3.4	4.0	4.1	4.3	4.5	4.5	4.7
Fruits	4.3	3.7	3.7	3.7	3.6	3.7	4.4	4.5	4.7	4.8	4.8	5.0
Rubber	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8
Sesame	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.4	0.2	0.2	0.3	0.3
Cocoa	*	0.1	0.1	0.4	0.3	0.2	0.1	*	*	0.1	0.2	*
Others	7.3	8.9	10.3	10.5	9.4	8.8	9.2	9.4	9.5	9.1	8.3	8.2
LIVESTOCK	12.7	10.7	10.4	9.6	9.3	9.3	8.8	8.7	8.6	8.7	8.6	8.4
Beef Cattle	6.2	5.8	6.1	5.7	5.3	5.1	4.6	4.5	4.3	4.5	4.4	4.2
Pork	6.3	4.0	4.2	3.8	3.9	4.1	4.1	4.1	4.2	4.1	4.1	4.1
Others	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
POULTRY	3.5	4.1	4.3	5.5	6.1	6.6	6.8	6.7	7.0	7.2	7.4	7.6
LIVESTOCK PRODUCTS	18.9	17.9	18.4	17.8	18.6	18.4	17.9	17.9	18.2	18.7	17.9	17.8

* Less than 0.1

SOURCE: Derived from Table 12

Table 4. GUATEMALA GROSS DOMESTIC PRODUCT BY SECTORS
(In percentages)

	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total GDP	100.0	100.0	100.0	100.0	100.0	100.00	100.0	100.0	10.0	100.0	100.0	100.0	100.0
1. Agriculture and related activities	27.3	28.0	27.2	26.3	25.9	25.4	24.9	25.0	25.1	25.3	25.7	25.7	25.7
2. Mining	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.4	0.3	0.3	0.2	0.3
3. Manufacturing	15.8	15.1	15.5	16.0	16.2	16.3	16.7	16.0	15.8	15.9	15.8	16.0	16.1
4. Construction	1.6	1.9	3.0	3.2	3.1	3.2	3.2	3.7	3.4	2.6	1.8	1.7	1.6
5. Energy	1.2	1.4	1.4	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	2.0
6. Transportation, Storage and Communications	5.5	6.4	6.5	6.5	6.6	6.7	6.9	6.8	6.7	6.8	6.9	7.1	7.0
7. Commerce	28.9	27.5	27.7	28.2	28.1	27.5	27.0	27.0	26.4	26.0	26.1	25.5	24.9
8. Finance	2.3	2.8	3.1	2.9	3.0	3.4	3.4	3.5	3.6	3.6	3.7	3.7	3.8
9. Rental Income	7.0	5.9	4.4	4.5	4.5	4.5	4.4	4.5	4.8	5.1	5.1	5.3	5.4
10. Public Administration	4.8	5.0	5.2	4.8	4.8	4.9	5.2	5.4	5.9	6.3	6.4	6.5	6.8
11. Private Services	5.5	5.9	5.9	5.9	5.9	6.1	6.1	6.1	6.2	6.3	6.4	6.4	6.4

SOURCE: Derived from Table 3

Table 5. NON-TRADITIONAL AGRICULTURAL EXPORTS* AS A SOURCE OF FOREIGN EXCHANGE FOR GUATEMALA

PRODUCTS	1983 Quty (MT)	1983 Value FOB (Q Millions)	1984 Quty (MT)	1984 Value FOB (Q Millions)**	1985 Quty (MT)	1985 Value FOB (Q Millions)**
I. FRUITS						
Fresh or Frozen	28,968	5.6	26,865	3.8	15,948	3.7
Processed	1,713	1.5	2,920	2.7	1,155	0.8
II. VEGETABLES						
Fresh or Frozen	71,356	28.9	73,467	18.6	84,939	16.3
Processed	1,825	2.2	1,662	1.9	1,266	0.9
III. NUTS AND SPICES	449	0.5	1,242	1.0	1,748	0.5
IV. NURSERY & SEEDS	5,537	5.8	10,812	8.4	15,823	9.9
V. MISC	3,664	2.9	3,499	2.3	3,518	2.2
TOTAL NON-TRADITIONAL AG EXPORTS		39.4		38.4		34.3
TOTAL AG EXPORTS		635.2		621.6		622.3
(% Non-traditional)		(6%)		(6%)		(6%)
TOTAL EXPORT EARNINGS		1,158.8		1,122.3		1,029.6
(% Agricultural)		(54%)		(55%)		(60%)
(% Non-traditional Ag)		(3%)		(3%)		(3%)

* This refers to those non-traditional agricultural exports covered in this study. If such products as sesame seed (Q10.1 million) and cardamom (Q18.8 million) were included, the nuts and spices category alone would have increased non-traditional agricultural export earnings to 101.2 million quetzales in 1985. With the addition of fresh and frozen shellfish (Q9.1 million), the other major non-traditional commodity not covered in this guide, earnings from non-traditional agricultural products would have reached 112.3 million quetzales in 1985 — or 11% of total export earnings. These three products were not included in this study because the magnitude of sales already reached indicates that most exporters of these commodities have established importer contacts.

** The official exchange rate continues to be Q1.00 = $1.00. Since November of 1984, however, a parallel market exchange system was established for agricultural sales starting at Q1.48 = $1.00. In 1985, this ranged from Q1.55 to Q3.95 = $1.00.

SOURCE: Bank of Guatemala

Table 6. LAND DISTRIBUTION IN GUATEMALA

Farm Size	Number of Farms						Area (hectares)					
	1950		1964		1979		1950		1964		1979	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
National Total	248,687	100.0	417,344	100.0	521,636	100.0	3,720,831	100.0	3,457,737	100.0	4,180,246	100.0
Less than 0.7 ha.	74,269	21.3	85,003	20.4	166,732	31.4	28,575	0.8	32,678	0.9	55,430	1.3
0.7 to less than 1.4 ha.	91,581	26.3	98,658	23.6	121,351	23.0	94,554	2.5	95,428	2.8	115,116	2.8
1.4 to less than 3.5 ha.	99,779	28.6	129,115	30.9	128,587	24.2	212,090	5.7	279,693	8.1	267,902	6.4
3.5 to less than 7 ha.	42,444	12.2	52,023	12.5	51,798	9.7	197,911	5.3	242,833	7.0	240,142	5.8
7 to less than 22.4 ha.	26,916	7.7	37,025	8.9	40,378	7.6	310,915	8.4	446,564	12.9	[illegible]	[illegible]
22.4 to less than 44.8 ha.	6,125	1.7	6,631	1.6	9,131	1.7	189,916	5.1	203,508	5.9	283,158	6.8
44.8 to less than 450 ha.	6,488	1.9	7,859	1.9	12,297	2.3	813,262	21.9	915,079	26.5	1,281,854	30.7
450 to less than 900 ha.	569	0.2	561	0.1	880	0.2	354,270	9.5	345,739	10.0	535,630	12.8
900 to less than 2,250 ha.	358	0.1	294	0.1	388	0.1	495,508	13.3	387,093	11.2	501,714	12.0
2,250 to less than 4,500 ha.	104	*	56	*	75	*	327,649	8.8	169,747	4.9	227,156	5.4
4,500 to less than 9,000 ha.	32	*	30	*	15	*	196,333	5.3	178,448	5.2	88,663	2.1
9,000 ha. and more	22	*	9	*	4	*	499,848	13.4	160,927	4.6	85,623	2.0

* Less than 0.1

The Census of 1950 eliminated all farms of less than .04 hectare (i.e., una cuerda), whereas the 1964 Census established no lower limit. The 1979 Census recorded all farms irrespective of size, but at the time of the compilation of this study the data for farms of less than .04 hectare had not yet been processed. It is understood that there are approximately 70,000 farms of this size, yielding a maximum estimated total of 3,043 hectares of land.

Table V. AGRARIAN STRUCTURE BY SOCIAL CATEGORIES OF PRODUCERS
(In percentages)

Regions	Campesinos			Small Farmers			Transitional	Commercial Farmers				Total
	Infra-subsistence	Subsistence	Total	Sub-Family	Family	Total	Farmers	Small	Medium	Large	Total	
Western Highlands												
Farms	33.2	11.4	44.6	4.3	2.5	6.8	0.5	0.3	N.S.	N.S.	0.3	53.2
Area	2.5	3.1	5.6	2.6	3.8	6.4	2.1	4.6	3.9	1.0	9.5	23.6
Pacific Coastal Plain												
Farms	7.4	2.4	9.8	0.9	1.3	2.2	0.2	0.4	0.1	N.S.	0.5	12.7
Area	0.5	0.6	1.1	0.5	2.3	2.8	0.8	8.2	10.3	2.7	21.2	26.0
East												
Farms	5.8	5.0	10.8	1.7	1.3	3.0	0.3	0.4	N.S.	N.S.	0.4	14.6
Area	0.5	1.3	1.8	1.0	2.0	3.0	1.3	4.8	2.0	0.7	7.4	13.6
Northern Lowlands												
Farms	5.4	4.1	9.5	2.1	2.0	4.1	0.3	0.3	0.1	N.S.	0.4	14.3
Area	0.5	1.1	1.6	1.3	3.0	4.3	1.2	4.3	5.0	4.2	13.5	20.5
Petén												
Farms	0.4	0.6	1.0	0.4	0.3	0.7	0.2	0.8	0.1	N.S.	0.9	2.8
Area	N.S.	0.2	0.2	0.2	0.5	0.7	1.1	7.5	2.9	1.0	11.4	13.5
Guatemala												
Farms	2.0	0.8	2.8	0.3	0.2	0.5	N.S.	0.1	N.S.	-	0.1	3.3
Area	0.1	0.2	0.3	0.2	0.2	0.4	0.2	1.3	0.7	-	2.0	2.9
TOTAL												
Farms	54.2	24.2	78.4	9.7	7.6	17.3	1.7	2.3	0.2	0.1	2.6	100.0
Area	4.1	6.4	10.5	5.8	11.9	17.7	6.8	30.7	24.8	9.6	65.1	100.0

* Determined by farm size, crop mix and income
N.S. = Not significant

SOURCE: Calculations based on 1979 Agricultural Census data.

Table 8. LAND AVAILABLE FOR AGRICULTURAL USES PER CAPITA
(Hectares per person)

Regions and Departments	1964	1973	1982
TOTAL	1.82	1.52	1.11
Western Highlands			
Sacatepéquez	1.43	1.17	0.96
Chimaltenango	0.94	0.78	0.59
Sololá	0.68	0.57	0.48
Totonicapán	0.35	0.29	0.22
Quetzaltenango	0.84	0.74	0.56
San Marcos	0.62	0.53	0.38
Huehuetenango	1.11	0.88	0.62
El Quiché	1.70	1.37	1.01
Pacific Coastal Plain			
Escuintla	2.06	2.21	1.36
Santa Rosa	1.12	1.00	0.72
Suchitepéquez	0.94	0.89	0.62
Retalhuleu	1.76	1.73	1.14
East			
El Progreso	0.86	0.77	0.57
Zacapa	1.19	1.14	0.90
Chiquimula	0.40	0.38	0.28
Jalapa	0.90	0.77	0.58
Jutiapa	1.02	0.85	0.64
Northern Lowlands			
Baja Verapaz	0.99	0.91	0.63
Alta Verapaz	2.14	2.01	1.50
Izabal	6.06	3.55	2.09
El Petén	110.90	35.47	22.37
Guatemala	0.72	0.39	0.35

SOURCE: Dirección General de Estadística/Secretaría General del Consejo Nacional de Planificación Económica. Estimaciones de Poblaciones de 1979 a 2000. Instituto Geográfico Nacional/Secretaría General del Consejo Nacional de Planificación Económica e Instituto Nacional Forestal y Cifras de los Censos de Población.

ANNEX A. GENERAL BACKGROUND AND DESCRIPTION OF THE AGRICULTURE SECTOR

I. General Background and Description of the Agriculture Sector

A. Macroeconomic Considerations

The agriculture sector has long been predominant in the Guatemalan economy. It currently employs 58% of the economically active population and generates two-thirds of the country's foreign exchange earnings, principally from the traditional agricultural exports of coffee, cotton, sugar, bananas, and livestock (Table 1).

The contribution of agriculture to Gross Domestic Product (GDP) fell from an average of 28% during 1970-75 to 25% in 1980. This resulted from an increase in total GDP growth relative to agriculture, specifically in the manufacturing and construction sectors of the economy, in response to internal demand and expanded trade opportunities in the Central American Common Market (CACM). Agricultural production also increased during this period, but at a slower pace.

There were some slight adjustments during 1970-80 in the internal structure of the agricultural sector, when traditional and nontraditional export crops increased in importance due to favorable world prices. During 1980-85, however, export crop and livestock production declined, while production of food crops for domestic consumption increased (Table 2). During 1983-86, traditional agricultural exports as a proportion of total export earnings increased from 55% to 67%, due primarily to high world coffee prices.

In 1980, the Guatemalan economy began contracting and by 1985 real GDP was 5.8% less than in 1980; real agricultural GDP was 2.8% less. Although agricultural production declined, it still contributed an average of 25% to GDP during 1981-85 (Table 3).

B. Traditional Export Crops

1. Coffee

Coffee is the dominant commercial crop, typically accounting for about one-fifth of agricultural production, $350 to $500 million of foreign exchange earnings, and employment of 350,000 people. The 35% drop in coffee prices from 1986 to 1987 will cost the economy $170 million of foreign exchange earnings, or about 15% of total 1986 export earnings. Prospects for 1987 are even dimmer.

Coffee production also has been afflicted by coffee rust, whose control requires intensive use of costly imported chemicals, thereby reducing profitability. The most severely affected are the 40,000 small farms (under 7 hectares), accounting for 82% of all coffee farms but only 9%

of national production. These small holders tend to have low yields, older trees, and little access to financing for renewal and upgrading of their farms. Declining output also will cause dislocations and unemployment among the large number of indigenous workers who harvest coffee. Average coffee yields for Guatemala (0.7 mt/ha) are slightly below the average for Central America, but only one-half those for highly technified Costa Rican production (1.4 mt/ha).

2. Cotton

Produced primarily on the Pacific Coast Plain, cotton traditionally has accounted for 10% of agricultural output, with $200 million of foreign exchange earnings in 1980. However, the industry began declining in 1980 with falling world prices, and by 1985 cotton accounted for only 5% of production. Nevertheless, it still provided 150,000 part-time jobs at harvesttime and $28 million of foreign exchange earnings in 1986.

Area harvested and yields increased with rising international prices and successful pest control during the 1970s. Yields (3.6 mt/ha) were almost 40% higher than those of other Latin American countries, due to soil fertility, favorable growing conditions, and intensive use of insecticides. In the 1980s, however, increasing insect resistance and high pesticide costs have increased production costs and reduced the industry's ability to withstand sharp drops in world prices.

The adverse economic effects of sharply decreased production and export earnings were exacerbated by reduced supplies of cottonseed oil and animal feed by-products. Demand for these products now must be met by diversifying to other oilseed crops or through imports. While soybean plantings have increased from 3,000 hectares in 1983 to 21,000 hectares in 1987, much productive land on the Pacific Coastal Plain remains fallow and much of the indigenous labor is unemployed.

3. Bananas

In 1986, banana cultivation accounted for 5% of agricultural output and $73 million in foreign exchange earnings. Export earnings declined during 1975-80, but have returned to pre-1975 levels over the last 5 years, a result of expanded production rather than higher prices. Export production, located primarily in the lower Motagua Valley, provides 7,000 permanent jobs. Export marketing is dependent upon the Del Monte Fruit Company, and all sales are to the United States. Average yields (47 mt/ha) are the highest in Central America.

4. Sugarcane

Similar to bananas, sugar accounted for 5% of agricultural output and generated $52 million in foreign exchange earnings in 1986. Guatemala's average cane yields (79 mt/ha) are the highest in Central America.

The sugar industry has been adversely affected by the continuing reduction of the U.S. import quota. Guatemala's quota, which permits access to the premium U.S. market, was cut 17% in 1986 and 47% in 1987, reducing foreign exchange earnings over the two years by $19.3 million. The future of the sugar industry now is uncertain. Declining output causes greater unemployment among the rural labor force on the Pacific Coastal Plain, further exacerbating the problem from cotton.

5. Cardamom

Cardamom has been a success for Guatemala. By 1984, it represented 3% of agricultural production and generated $100 million of foreign exchange, surpassing both bananas and sugar. It has expanded from less than 10,000 hectares in the early 1970s to approximately 50,000 hectares in 1986.

Guatemala recently has replaced India as the world's largest cardamom producer. However, earlier high international prices encouraged other countries to enter into production, resulting in downward pressure on prices. Presently, the world supply of 13,700 metric tons exceeds demand by almost 40%. Prices have dropped by one-half over the last two years, and carryover stocks are accumulating. As prices continue to drop, large numbers of the 50,000 Guatemalan small-scale producers will be forced to abandon the crop as unprofitable.

C. Nontraditional Export Crops

During 1983-86, the value of nontraditional agricultural exports rose 17%, and reached 19% of total output (Table 2). In 1985, perishable exports (principally fruits, vegetables, ornamentals, and flowers) generated $34 million in earnings, or 3% of total exports. Almost one-half of these were fresh and frozen vegetables (Table 4). The ten leading nontraditional export crops produced $42 million in sales in 1985.

This upward trend of the past 5 years is indicative of the adjustments being made to exploit the country's competitive position in international markets. Much of the shift to nontraditional, export-oriented production has been achieved through diversification from consumption crops on small farms, particularly in the Highlands. This trend is expected to continue as farmers seek greater returns to their land and labor.

D. Domestic Food Crops

The production of food crops for domestic consumption has varied inversely with crop production for export markets. With the 1970s emphasis on export crops on large Pacific Coastal operations, total food crop production dropped from 14% in 1970 to 8.5% in 1980. It since has steadily increased, to 11% by 1985 (Table 2). Most of the increased food production has resulted from expanded area cultivated rather than improved yields. For example, since the early 1980s corn area planted on the Pacific Coastal Plain has increased steadily as cotton area has declined. However, basic grains yields have not improved significantly over time.

E. Livestock

Livestock production has remained stagnant during the past 15 years, accounting for 35% of the value of agricultural production (Table 2). Beef exports have declined from 3% of total value of exports in 1970 to 0.6% in 1985, generating $10 million in foreign exchange. Most of the reduction in exports during the 1980s has been due to reduced U.S. import quotas and stricter quality control on the domestic market. Beef production has been declining since 1983 as a result of lower consumer demand from declining real incomes, and government-controlled beef prices at lower-than-cost levels. Conversely, poultry consumption has been increasing, and appears to have considerable growth potential.

Guatemala is a net importer of milk and milk products. Milk production was about 263 million liters in 1985, 70% from dual purpose cattle farms. Domestic production falls short of demand by about one-third, and the country must import increasingly larger quantities of powered milk and dairy products. Imports have grown from 12.9 million liters in 1975 to 125.3 million in 1985. Per capita consumption has been little improved since 1980. Price controls and ceiling prices have discouraged domestic milk production for several years. Although controls were officially eliminated in early 1987, imported milk products continue to compete in local markets.

F. The Resource Base

1. Land and Farming

Guatemala's land area of 108,889 Km^2 is 57% forested, 14% cultivated, 10% in pasture, and 19% in other uses. Smaller farms concentrated in the Highlands tend to have a higher proportion of their land in annual crops and produce most of Guatemala's food for domestic consumption. Traditional export crops are grown on the larger, plantation-type farms of the Pacific Coastal Plain.

Guatemala has the most highly skewed land distribution of any Central American country. In 1979, farms smaller than 3.5 hectares comprised 78% of all farms, but occupied only 10% of the land under production. At the other end of the scale, fewer than 3% of farms in Guatemala were over 450 hectares in size, yet they occupied 34% of all land in farms (Table 5).

About 54% of all farms, containing perhaps 80% of the rural population, are 1.4 hectares or less, too small to generate enough income for the basic needs of a rural family (5 or more people). Farm income must be supplemented with off-farm employment, usually as migrant laborers on Pacific Coastal plantations. In 1979, 78% of farms were in the size range between 0.04 and 3.5 hectares, representing a steady 20-year increase in the number of small farms, now totalling approximately 450,000. Family-sized farms (3.5 to 22.4 hectares), which could support an acceptable standard of living, increased in number at the slowest pace.

The smallest farms are concentrated in the Western Highlands (45% of all farms) and in the East (11% of all farms). The largest farms are on the Pacific Coastal Plain (21% of total area), the Northern Lowlands (14% of total area), and the Peten (11% of total area) (Table 6). The concentration of small, poor quality farms in the Western Highlands and the East has resulted in much land inappropriate for agriculture being placed under cultivation, accelerating both deforestation and soil erosion.

2. Forests

Softwood pine forests, once covering large sections of the Western and Northern Highlands, are now reduced to a few small areas, and even those are being cleared to meet the demand for firewood, charcoal, lumber, and new farmland. Most fuelwood is gathered by women and children for home consumption. Annual consumption amounts to about one ton per person, almost 6 million tons nationally. Tropical hardwood forests covering most of the Pacific Coastal Plain were removed in the 1930s to 1950s to make way for agriculture. Since the 1970s, the most extensive tropical forests of northern Alta Verapez, Quiche, and Huehuetenango are being cleared along an expanding agricultural frontier. A similar process has been occurring in the Peten for the past 30 years. These northern sectors, the country's main forest reserves, are rapidly being cleared. Conservative estimates suggest the natural forest stands are being reduced by 1% to 1.5% per year, which is equivalent to 1,080 to 1,620 Km^2, and would result in disappearance of the natural woodland cover in 25 to 40 years.

3. Infrastructure

Guatemala has developed a large and complex transportation network, including primary highways and paved secondary roads connecting the main population centers and serving major export production areas on the Pacific Coastal Plain and Piedmont. However, much of this network is not properly maintained and consequently in poor condition. Moreover, this network is not supported by adequate tertiary and farm-to-market feeder roads. As a result, the majority of small farmers still lack reliable and convenient year-round access to product and input markets.

Irrigation in Guatemala is neither extensive nor well-developed due to the mountainous nature of the cultivated Highland areas and the generally sufficient rainfall in most cultivated Lowland areas.

Guatemala is particularly rich in energy resources. In Central America, it ranks first in geothermal and second in hydropower potential. Oil and gas reserves are in the underdeveloped Peten. However, Guatemala has been slow to develop and distribute its energy resources. Consequently, energy shortages in the near to mid-term threaten the country's economic recovery.

4. Resource Summary

Guatemala has numerous positive attributes which, if exploited appropriately, could strengthen substantially the agriculture sector's contribution to the country's economic growth and development. These attributes include:

- large, contiguous areas of productive soils on the Pacific Coastal Plain;
- productive volcanic soils in the Highlands;
- generally favorable rainfall patterns; absence of extended droughts and freezes; diverse micro climates enabling production of a large variety of products;
- considerable hydroelectric potential for rural development purposes;
- a hard-working indigenous population;
- a young, dynamic private sector interested in agricultural production, processing, and exporting;

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- o an extensive cooperative organization reaching into the hinterlands and servicing its farmer members;

- o geographic proximity to U.S. markets providing a competitive advantage over other exporting countries; and

- o a democratic government interested in improved rural incomes and productivity growth.

G. Indicators and Trends

As a result of the country's 3% annual population growth and skewed land tenure pattern, there is growing pressure on land. All regions and departments of the country show a continued reduction in land availability per rural inhabitant. Average per capita availability in 1964 was 1.82 hectares, 1.52 hectares in 1973, and only 1.11 hectares by 1982. The region most affected is the Western Highlands (Table 7). Due to increasing population pressure, much land not suitable for agriculture has been placed under production. This has resulted in serious deforestation and soil erosion.

The landless and rural poor are prime targets for leftist movements seeking power through violent means. In the 1960s, the Pacific Coastal Plain was a center of political violence and unrest. In the 1970s and 1980s, guerrilla groups recruited successfully in Highland communities. In the past year, a pacifist agrarian movement of from 60,000 to 100,000 people under the leadership of an activist priest has emerged on the Pacific Coastal Plain. The group is pressuring the government to develop a land marketing program allowing peasant groups to purchase unused or underutilized farms. In April 1986, 16,000 landless peasants marched from Nueva Concepcion to the national capital in Guatemala City.

Chronic malnutrition caused by extreme rural poverty is a serious problem. Approximately 60% of rural children fell below two standard deviations from the median height for their age due to chronic malnourishment. In the last 5 years, the nutritional situation has worsened due to declining real incomes, especially in the Departments of Solola, Totonicapan, Quezaltenango, San Marcos, and Quiche (Western Highlands).

A revealing indicator of the government's pursuit of agricultural development is the proportion of the annual budget allocated to the sector, especially for investment as opposed to operations. In 1976, the Ministry of Agriculture had 7.6% of the budget, 4.2% in 1981, and only 3.2% in 1985. In 1987, agriculture is to receive 4.5%.

This trend is cause for concern. Although the investment portion of the total budget has remained near 50% during 1975-85, deficit reduction through under-spending typically reduces actual investment. In 1986, for example, only 40% of the total agricultural budget was actually spent, essentially eliminating any investment.

Apart from government influence, economic recovery and growth are linked to the private financial community. Traditionally, the commercial banking system has been the main source of financing for agriculture, providing 90% of all credit during 1983-85. In 1985, private banks provided Q190 million to the sector, a decline in real terms of approximately 10% from 1983. Seventy-five percent of this lending was for production of cotton, coffee, sugarcane, and livestock, and over 90% of the loans were for annual operations.

Currently, private bank investment capital is severely restricted and short-term credit is also difficult to obtain. Collateral requirements have always been high (i.e., 200% of the face value of a loan), and inadequate credit delivery systems virtually eliminate small and medium-scale producer access to commercial bank financing. As world market prices for traditional export crops have declined, banks have become even more reluctant to lend for agriculture. Even though loan interest rate ceilings were raised from 12% to 14% in early 1987, banks continue to prefer urban or consumer-based lending and investment in government securities.

The prolonged recession of the first half of the 1980s reduced real per capita income by 16.5%. The economic downturn was caused by a variety of external and internal factors, including unfavorable commodity prices, regional political instability and capital flight, and counterproductive macroeconomic policy management.

By 1986, when the country returned to civilian government, the economy was in shambles. Inflation had reached historical high levels (40% annually). The exchange rate system disorderly and unreliably allocated foreign exchange for importers. In addition, it was overly complex, creating disincentives to exporters, especially traditional export crops. Tax revenues had deteriorated significantly, due to the failure of a 1983 tax reform attempt and an almost non-existent administrative apparatus. On top of these domestic problems, the country faced an untenable debt service burden due to the unrestrained borrowing of the early 1980s. Short-term borrowings were used to defend the overvalued exchange rate at commercial interest rates.

ANNEX B. U.S. AGRICULTURAL TASK FORCE RECOMMENDATIONS

In early 1987, an Agricultural Task Force, composed of members of the U.S. private sector, was invited to Guatemala by USAID/Guatemala with concurrence of the GOG and private sector. The Task Force was asked to appraise the present and prospective performance of the agricultural and food system, review policies and programs that most affect it, and suggest ways to improve the agricultural production and marketing system. In addition, the Task Force was asked to help initiate an ongoing process to facilitate public-private dialogue on agricultural matters, and to improve interchange between the public and private sectors and the Mission.

The first phase of the Task Force's work began on March 29, 1987, and was completed with briefings and discussions of preliminary recommendations with the Minister of Agriculture, representatives of the private sector, and U.S. government personnel on April 10. During the two weeks spent in Guatemala, members of the Task Force travelled widely visiting highly diverse agricultural areas. The Task Force also visited with numerous people involved in various aspects of the agricultural and food system including farmers of all types, processors, distributors, exporters, bankers, input suppliers, and government officials from various ministries and offices.

The Task Force prepared a series of 28 recommendations for program, project, and policy interventions in the following 8 major categories:

- Basic Food Commodities;
- Traditional Export Crops;
- Nontraditional Export Crops;
- Livestock;
- Diversification, Environment, and Land Tenure;
- Agricultural Finance;
- Agricultural Research and Extension; and
- Food Distribution.

The Task Force recognized the great importance of agriculture in Guatemala to overall economic activity and growth and to continued political tranquility and the democratic process. Because of its importance in the economy, agriculture is strongly affected by macroeconomic policies. Therefore, a continued policy dialogue with the GOG on the effect of these policies (exchange rates, import/export taxes, credit policies, public expenditures in agriculture, etc.) on agricultural development and growth is extremely important.

The Task Force highlighted the difficulties faced by the traditional export crop sector in relation to depressed world prices and restrictive quotas, while emphasizing the need to make the existing operations more cost-efficient (increased yields and/or lower input costs) and competitive (improved product quality). Simultaneously, broadening the agricultural export base through crop diversification is needed. Some of the serious constraints to expanding nontraditional agricultural production identified by the Task Force that must be addressed are:

- o provision of adaptive agricultural support to the small growers which is complex and beyond the capability of existing institutions;
- o insufficient irrigated lands in principal growing areas to enable production to meet market windows during the dry season;
- o concentration of chemical residues in soil and water which contaminate the produce, precluding its export;
- o concentration of insects and diseases which reduce yields of most vegetable and fruit crops; and
- o inadequate produce collection and delivery system in most Highland growing areas.

Although some of the support for dealing with these constraints can come from the private sector, the public sector must be responsive and take steps to complement private sector efforts.

The Task Force recognized the recent disappointing performance of the basic grains sector, where yields have not improved significantly over time, nor has total output. With a high population growth rate, the result is declining per capita availability of basic grains. The Task Force believes that the present price policy is neither very effective nor an efficient use of scarce fiscal resources, and suggests that the long-term performance of the sector would be enhanced by a less interventionist policy of the government and greater participation of the private sector. This will require a reassessment of the present pricing policy and consideration of alternative approaches.

The Task Force's overall findings concerning agricultural finance are that long-term capital and investment needs cannot be served by existing institutions, and new private sector investment vehicles must be created. The short and medium-term needs can be handled by existing institutions with current funding, but the delivery system (especially that of the Agricultural Development Bank) urgently needs improving.

Specifically, the Task Force recommended the following:

1. Basic Food Commodities

- The government should seek assistance in formulating a long-term pricing policy for basic food commodities and developing an associated strategy for its implementation.
- The role of INDECA should be reviewed and considered in terms of the long-term pricing policy and import/export policies.
- The government should seek to identify all such sectoral policies affecting agriculture, review their effectiveness, and develop a coherent strategy to ensure their consistency.
- The government should proceed with removal of all price ceilings as rapidly as is practical to avoid distorting the incentives for greater food production.
- As part of the overall policy review, the government should examine the feasibility of divestiture of INDECA storage facilities (sale or lease to the private sector) for operation as commercial facilities; the creation of a national market for commodity warehouse receipts; and the pursuit of price support objectives through purchase and sale of warehouse receipts by INDECA or other appropriate entity.

2. Traditional Export Crops

- An overall appraisal should be jointly conducted by the public and private sectors of the long-run world market prospects for the traditional export commodities. Based on those results, priorities should be established for the commodities and strategies developed to improve production and marketing efficiency and overall competitiveness of the commodity industry.
- Government policies (exchange rates, export taxation, etc.) affecting traditional exports should be reviewed, with special attention given to impacts that adversely affect their competitiveness in external markets. (The situation for bananas may prove especially instructive.)
- Both private and public research and extension efforts should be reviewed and needs assessed, in coordination with the long-term strategies being developed.

3. Nontraditional Export Crops

- An overall strategy should be developed cooperatively by the public and private sectors for expansion of nontraditional crop exports. There are numerous possibilities , but with limited resources to support the necessary development activities, priorities must be established and the available resources focused on the most promising crops.

- Improved external market demand information should be developed to effectively inform the private sector of international commodity market opportunities. This information should include estimates of the short and long-term international supply and demand situation and outlook.

- With the assistance of USAID and the U.S. Department of Agriculture (USDA), nontariff barriers to Guatemalan exports to the United States should be catalogued and a specific strategy developed for attempting to have them removed, where feasible.

- Although cooperatives can be an important institution to small farmer market entry and growth, other private business structures should be explored for organizing production and marketing of nontraditional crops. Perhaps a modified form of the Fondo Ganadero could be used.

4. Livestock

- Special attention should be given to expanding national output of beef and milk from small and medium-sized producers. As one means of achieving this objective, the establishment of Fondos Ganaderos should be investigated. The recent experience in Honduras with formation of a Fondo should be studied to identify problems that could be expected to be encountered.

- The current situation of unlimited and generally unmonitored use of subsidized dairy product imports should be brought to the attention of the government and its impact on development of a viable domestic dairy industry should be examined. Further, means should be identified to minimize competition of donated dairy products with commercial products in the consumer market.

- An assessment should be made of the potential role of swine and small ruminants as part of the national livestock development strategy.

- Farm-level technical assistance should focus first and primarily on improving animal nutrition through improvement of grasses and forages.

5. Diversification, Environment, and Land Tenure

- An assessment should be conducted to incorporate an overall view of the effects of diversification--on the environment, soil conservation, chemical contamination, water utilization, farm incomes, human nutrition, etc.--to enable development of programs that fully take account of all such factors.

- Special attention should be given to the feasibility of diversification systems that are especially suited to low resource agriculture.

- All parties should engage in good faith dialogue as quickly as possible to find acceptable means for resolving the land tenure issue which is a major deterrent to investment and growth in agriculture.

6. Agricultural Finance

- A review and modernization of the banking laws should be undertaken as well as the accounting/information systems by which the banking system operates in order to enable banks to more appropriately meet current financial needs of the country.

- A complete review of BANDESA should be conducted, with special emphasis on its primary mission and purpose--who it is intended to serve and how it can best accomplish that. Its technical capability to evaluate, structure, and monitor loans should be dramatically improved. Also, it should be effectively linked with ICTA and other government agencies on policies and priorities. Finally, BANDESA's delinquent portfolio should be rehabilitated by an urgent program with a professional cadre supplied with appropriate resources.

- An examination of AID's loan procedures and conditions should be conducted by banking professionals starting from the borrower's point of view. This review should include inquires into features not present in AID loans (or anywhere in the nation's formal credit system) which might enhance effectiveness not only of AID's loans but also the entire system. This assessment would include a comparison of loan characteristics from other agencies; the utility of a risk insurance feature;

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and the merit of a futures exchange system where importers and exporters could hedge crop costs and revenues.

- Attention should be given to long-term investment capital needs, especially the feasibility of establishing a venture capital fund for Guatemala having in mind a regional approach both to the diversification and management of risk and provision of adequate funding. The organization should be as free as possible of government control and managed by and for the benefit of private sector producers.

7. Agricultural Research and Extension

- A national agricultural science and technology foundation should be established to strengthen the country's research and extension system. The foundation should be managed and controlled by a private and independent board of directors. The foundation can support public agencies and also private organizations such as the Universidad del Valle.

- Increased public investment should be made in research and extension institutions but generally not for the creation of more divisions, branches, or other bureaucratic structures.

8. Food Distribution

- Special attention should be given to identification of the food distribution inefficiencies in moving commodities from farmgate to consumer, and a strategy devised for addressing the most important constraints to improved efficiency.

- Technical assistance should be obtained to provide system management training, skill training, and educational services to those involved in distribution services.

- A market information system should be designed and implemented to improve the competitive operations of the distribution system.

ANNEX C. OTHER GOALS AND STRATEGIES RELATED TO THE AGRICULTURAL SECTOR STRATEGY

In developing the Mission's Agriculture Sector Strategy and identifying discrete project interventions most suited to the Mission, several related activities and efforts were reviewed, including the GOG's development plans and strategy, past and present AID interventions, other donor activities, NBCCA goals, and the LAC Focus Statement.

I. Country Development Strategy Statement

The FY1986 Country Development Strategy Statement (CDSS), prepared in June 1983, stated the overall goal of the Mission as attaining broadly-based, equitably-shared, stable growth. Achievement of this goal continues to be hampered by limited, narrowly distributed economic growth and rapid population increases. The CDSS also stated, "The Mission will address the inadequate level of growth and the spread of the benefits of growth through a strategy intended to improve rural incomes and productivity. Priority attention will be given to the Western Highlands, the Indian heartland, which is the area of greatest poverty". Furthermore, "Improvement in agriculture, the primary source of employment and income, will be the paramount means of achieving the objective stated above. The strategy over this planning period will seek to (1) improve the existing resource base through such activities as soil conservation, terracing, small-scale irrigation and forestry management, (2) increase the efficiency in the use of available resources by encouraging diversification, research, application of appropriate technology , cooperative development and more intensive use of existing land, and (3) improve the agribusiness system including marketing, transportation/access networks, storage and handling facilities and cooperative involvement".

II. Past and Present USAID/Guatemala Assistance

Based on past analyses and evaluations and this strategy, the Mission has undertaken a series of major rural development initiatives during the period 1981-1986. The rural development programs of the 1980s have been directed toward increasing rural incomes through a more productive use of land and an increase in exports of nontraditional products. The Small Farmer Diversification Systems Project (520-0255) and the Highlands Agricultural Development Project (520-0274) have accelerated the use of soil conservation techniques and promoted small-scale irrigation activities in the Highlands. Simultaneously, financing has been provided for forest management, crop, and livestock diversification activities which are supported by a package of applied research, technology

transfer and credit. Two pilot Commercial Land Market Projects (520-0330 and 520-0343) are increasing small farmer access to land by providing funds for voluntary purchase/sale of large farms throughout the country. The Small Farmer Marketing Project (520-0238)--now terminated--and the Agribusiness Development Project (520-0276) have promoted the production of nontraditional exports by providing support to cooperatives and individual entrepreneurs to grow, process and/or pack, and export frozen and fresh fruits and vegetables to international markets. The Dairy Development Project (520-0355), the Family Fish Pond Projects (520-0290 and 520-0351), and the Cardamom Cultivation and Commercialization Project (520-0317) are directed at increasing small farmer incomes by introducing new technologies designed to increase productivity and marketability of production. The Cooperative Strengthening Project (520-0286) is increasing small farmer access to factors of production (credit, technology, management, etc.) by strengthening the ability of cooperatives and federations to operate as effective rural financial intermediaries in the provision of services.

Rural access roads have been a key to providing outlets for agricultural production as well as facilitating the timely delivery of inputs and technical services to the farmers. This support has been provided through the Roads Component of the Highlands Agricultural Development Project (520-0274) and the Farm-to-Market Roads Project (520-0332). Finally, the Rural Electrification II Project (520-0248) has facilitated the installation of agroindustries in rural areas close to principal production areas, as well as providing a power source for electric pumping systems for irrigation.

III. The Kissinger Commission (NBCCA) Goals

A. Economic Stabilization: The GOG has already undertaken extensive measures to stabilize the economy through adjustments to monetary, fiscal, exchange rate, and export policies. However, more efforts are necessary, along with substantial additional international assistance. A fully successful stabilization program will require improved dialogue to obtain removal of key policy constraints to greater agricultural productivity, and additional resources to promote production and marketing efficiencies and increased foreign exchange earnings.

B. Structural Transformation/Economic Growth: While private sector investment has declined during the past few years, the

more favorable policy environment created by the GOG's economic stabilization program is beginning to improve the investment climate and reverse this trend. Also, favorable trends are occurring for production and export of nontraditional crops. However, additional assistance will be required to increase agricultural diversification, improve rural infrastructure, and increase competitiveness of Guatemalan products in export markets.

C. Spreading the Benefits of Economic Growth: Improved living standards and more equitable distribution of the benefits of growth need to be achieved through increased employment opportunities by developing closer linkages between the agricultural and nonagricultural sectors, greater investment in human capital, improved efficiency in delivery of goods and services, and nutritional improvement for the rural population.

D. Strengthening Democratic Institutions: In order to assure the attainment of the above three NBCCA goals in an atmosphere of stability and development, it is necessary to foster growth of democratic institutions by strengthening and supporting labor unions, private and voluntary organizations, cooperatives, and farmer associations. The democratic process, resumed with the election of the Cerezo government in January 1986, will be strengthened to the extent the GOG is successful in pursuit of its goals of higher agricultural productivity, rural incomes, and employment.

IV. GOG Plan/Strategy

The present Christian Democratic government, in power since January 1986, has adopted four broad goals for the agricultural sector: maximization of income; generation of greater rural employment; distribution of economic gains to poorer sectors of the rural population; and achievement of a stable and balanced development process. Specifically, the GOG intends to:

- guarantee domestic food security through expanded area planted, productivity improvements, and increased on-farm storage capacity for basic grains;
- increase foreign exchange earnings through expanded traditional and nontraditional agricultural exports;
- assure rational management and use of the country's natural resource base through increased irrigation, expanded soil conservation, planned forest management and reforestation, and improved watershed protection;

- o expand agricultural diversification and agroindustrial development through improved incentives and investment; and

- o promote active participation of small farmers in the development process through technical assistance and expanded support to farmer organizations.

V. The Mission's Action Plans

The Mission's assistance strategy expressed in the FY1986 Country Development Strategy Statement (CDSS of April 1984) identified two program goals to direct the allocation of available resources: (1) a stabilization program to help offset the severe economic recession then being encountered; and (2) a return to a pattern of long-term real economic growth, emphasizing greater participation of the poor in the benefits of growth. Relatively higher levels of resources in the last three fiscal years have not changed these strategic themes. Instead, the funding levels and the return to democracy have increased the likelihood of achieving the goals by permitting a range of new interventions that have added heft to the valid but previously sparsely funded strategic framework.

The Action Plans of the last two years emphasized economic stabilization and transformation, greater participation of the poor in the benefits of growth, and a reduced rate of population expansion. Increased balance of payments inputs and initial policy reforms supported stabilization. ESF and P.L.480-generated local currency has substantially augmented dollar funding levels for all types of development programs.

The Mission's policy dialogue closely supports the strategy and achievement of the nine specific macroeconomic and sectoral level objectives identified in the latest Action Plan. The Mission's overriding objective is to have the total assistance package (ESF, DA, P.L. 480 and associated local currencies) leverage the policy dialogue beyond macroeconomic policies to include: (1) significant sectoral policy and procedural reforms designed to further spur economic growth and to make both public and private sector investments more effective; and, (2) complementary resource allocations in support of the policy dialogue and development program efficiency goals.

VI. LAC Focus Statement

In order to provide the Latin American and Caribbean (LAC) AID Missions with guidance in the preparation of their agricultural and rural development strategies, Abt Associates was contracted by the Rural Development Office of the LAC Bureau of AID/Washington to provide it with a report describing the recommended approach. This report (Guidelines for Supporting Agricultural and Rural Development in Latin America and the Caribbean) was prepared in July 1987 and discussed in depth at the biannual agricultural and rural development officers conference in November 1987. The concensus was that it provided useful orientation for strategy development. The following are highlights of this document.

"The focus of AID's agriculture, rural development and nutrition (ARDN) program is to increase the incomes of the poor majority and to expand the availability and consumption of food, while maintaining and enhancing the natural resource base. In general, prior guidance contained in the LAC agriculture and rural development strategy and the Jackson Plan is consistent with the new focus, and the new focus is not expected to generate a radical shift in the region's ARDN program. The focus statement renews emphasis on the Agency's concern for the impact of our program on the incomes of the poor majority, however, and clarifies the importance of issues related to food consumption and natural resources. Perhaps the strongest emphasis is on the need to devise more efficient systems to quantify the impact of our program, which is consistent with the Bureau's efforts under the Management by Objectives program."

"The LAC Bureau's approach to increasing incomes of the poor majority, improving food availability and consumption, and enhancing and maintaining the natural resource base in the region contains five major elements or guidelines for Mission programming. These are:

- supporting macroeconomic and agricultural sector policies conducive to increasing rural incomes;
- promoting commercially competitive, small family farms;
- fostering rural non-farm enterprise, employment, and private sector efficiency in meeting the needs of the agricultural sector;
- developing cost-effective, efficient public sector institutions serving agriculture; and
- improving natural resource management at the farm and sector level."

A. Supporting Macroeconomic and Agricultural Policy Reform

"Economic policies play a critical role in shaping the performance of the agricultural sector. In some countries in the LAC region, macroeconomic and agricultural policy reform may be the most critical elements in promoting agricultural growth and increases in the incomes of the rural poor. Four areas deserve the special attention of LAC Missions:

- o the effect of existing macroeconomic and agricultural sector policies on incomes of the rural poor and on AID-supported agricultural and rural development projects;
- o the need to engage host governments in a policy dialogue if macroeconomic or sector policies are a serious constraint to sectoral development;
- o the use of program assistance to encourage and support the host government to make needed policy reform; and
- o use of project assistance to build analytic capacity to support long-term improvements in agricultural policy-making."

B. Promoting Commercially Viable, Small Family Farms

"Small, poor farmers in the LAC countries are not active participants in either domestic or international markets for agricultural products. Most small farm families grow corn and beans or similar staples for themselves and for sale to other rural families or people in the town and cities. Some are involved in the production and sale of traditional export crops such as coffee or bananas. Still fewer have diversified their production to include nontraditional crops for export. The transformation of traditional, subsistence agriculture in countries of the LAC regions into small, but commercially competitive family farms, producing for the international as well as the domestic market, will contribute to increasing the incomes of both farmers and rural laborers. These farms can also provide the demand for productive inputs or marketing services of rural business."

"This transformation will require the elimination or easing of a number of significant constraints relating to access to land, inputs, finance and other productive resources. This concern complements concern for inefficient underutilization of land and capital in many LAC countries caused by poorly developed land and financial markets. Critical to small farmers will be actions that reduce the risks, including those

of diversification, associated with reduced dependence on subsistence agriculture and greater reliance on the market for food, income, and employment. AID Missions should undertake activities in several areas to promote this transformation:

- o ensuring access to land and to security of land tenure;
- o providing access to finance; and
- o promoting farmer organizations and associations.

Small farmers also need access to modern production technology and to marketing services for both products and inputs. These important aspects of AID's strategy for agricultural and rural development in the LAC region are discussed below in terms of developing the capacity of public and private sector institutions such as agricultural research, extension, and education organizations or ministries of agriculture to meet the needs of the agricultural sector."

C. Promoting Rural Non-Farm Enterprise, Employment, and Private Sector Efficiency in Meeting the Needs of the Agriculture Sector

"There are important links between strategies to promote small, commercially competitive family farms and those that promote rural non-farm enterprises and employment. Promoting access to land and securing titles to land will enable farmers to remain in farming, as will efforts to increase access to finance or assist with the development of farmer organizations. More viable, commercially oriented family farms will also have an increased demand for agricultural labor. But rural enterprises, both as sources of non-farm employment and as contributors to the production and marketing of farm output, will be critical to agricultural and rural development in the LAC region."

"Because of the links between strategies to enhance the viability of small family farmers, promote rural non-farm enterprises serving agriculture, and generate rural employment, AID should direct resources specifically to promoting non-farm enterprises and employment. Such activities should provide markets for farmers and employment opportunities for rural workers. AID's emphasis on employment generation should be complemented by efforts to develop an efficient and effective private sector capable of meeting needs of the agricultural sector."

"Mission involvement in developing rural industries can take the form of:

- o assistance in building rural infrastructure;
- o support for indigenous entrepreneurs; and
- o support for agribusiness activities".

D. Developing Efficient, Effective Institutions Serving Agriculture

"Research, extension, and education organizations and ministries of agriculture are among the most important public institutions serving agriculture and should be the focus of AID activity to enhance the effectiveness and efficiency of the public sector in agriculture. Private sector organizations also play critical roles in research, extension and education and these activities can be expanded and more effectively integrated with public sector programs. AID can assist in the strengthening of research and extension capaity in LAC countries in several ways. These include:

- o efforts to improve the technical competence of national agricultural research and extension organizations;
- o supporting links between national and international agricultural research organizations;
- o technical assistance and training in public administration and management for public sector agricultural agencies; and
- o development of private sector approaches to enhancing technology development and dissemination and agricultural education."

E. Improving Natural Resource Management

"AID Missions in the LAC region must integrate natural resource considerations into AID-assisted activities in order to promote sustainable, productive uses of land and water resources. Strategies that promote the development of commercially competitive small farms and of rural enterprises will also contribute to the goal of promoting environmentally sustainable agriculture. Those strategies reduce or eliminate the pressures that cause rural people to exploit environmentally fragile slopes and lowlands".

"National policies should take account of the environmental effects of agricultural development programs and projects. Missions should, therefore, engage host governments in a dialogue concerning the importance of natural resource maintenance and enhancement to agricultural and rural development. Beyond dialogue, Missions can use technical assistance and training to build natural resource management activities into projects or programs. Success in integrating natural resource activities into projects that deal with problems at the farm level will depend on the development and dissemination of technologies that increase farmers' incomes as well as protect the resource base."

"Experience in the Guatemalan Highlands, Honduras and Haiti in the development of terraces, agro-forestry and small irrigation systems, many of which can be built with family labor, is relevant for other AID-assisted countries in the region. These structures conserve soil and water under intensive cultivation on farms with steeply sloping land. Introducing tree crops in the steeper areas can help maintain productivity without degradation of soil resources, and still permit cultivation of other crops."

ANNEX D. RECENT GUATEMALAN POLICY ENVIRONMENT

The problems identified in the policy environment are grouped into those of a macroeconomic and a sectoral nature.

A. Macroeconomic Policies

The Cerezo administration inherited an economy in deep trouble. The balance-of-payments deficit was accompanied by contraction of international financing which forced the government to finance the deficit with expensive, short-term credit from private sources. Macroeconomic disorder during 1982-85 resulted in negative real growth (-1.0%) in 1985. Real GDP might have fallen further if stabilization measures had not been promptly put into place in 1986. Fortunately, the Cerezo government met the challenge and introduced policies in June 1986 which simplified the exchange system, effectively devalued the currency, reduced the public sector deficit, and controlled monetary expansion. These policies have had a profound influence on the agriculture sector as described below.

1. Exchange Rate Policy

The substantial depreciation of the Quetzal in the parallel exchange market in mid-1985 has made production for export more profitable. Under the exchange system prevailing in 1985, the greatest incentives went to production of nontraditional export commodities for the Central American Common Market (CACM) and extra-regional markets, with most traditional crops still surrendering the majority of their foreign exchange at the overvalued official rate of Q1.00 per US$1.00. The new system established in 1986 equalized export incentives across commodities by creation of a uniform exchange rate for all surrendered export receipts of Q2.50 per US$1.00. A windfall tax has effective rates ranging from 4% for nontraditional exports to 20% or more for traditional commodities. Even with this tax, exporters of nearly all agricultural commodities receive much more favorable exchange treatment under the new system.

Prior to introduction of the new system, imports of most inputs for agricultural production (fertilizer, pesticides, hand tools, etc.) were valued at the official exchange rate. The benefits of an exchange subsidy to producers were more than outweighed by the problem of foreign exchange shortages, which led to insufficient input imports to meet producer demand. This situation led to contraband, shortages and speculation in agricultural inputs, as well as reduced agricultural productivity and production. Reportedly, much of the fertilizer imported under the favorable exchange rate ended up in neighboring countries.

At present, agricultural inputs are imported at the regulated market exchange rate, now Q2.50 per dollar. There is no rationing of foreign exchange and import licenses require only a few days for processing. Nonetheless, the higher cost of fertilizer and pesticides has caused a reduction in input use and diminished production of chemical-intensive crops. For example, traditional farmers' productivity has fallen as they now use less fertilizer on basic grains, while cotton production is being cut back due to the higher import cost of pesticides. The GOG in 1986 experimented with a fertilizer import program aimed at providing small farmers with low-cost fertilizers. The program had mixed results, with benefits occurring at the cost of weakened private distribution networks and a larger national fiscal deficit.

2. Fiscal Policy

GOG fiscal policy since mid-1986 has been oriented toward controlling the public sector deficit through expenditure austerity and increased revenues. The new taxes introduced with the stabilization program included a windfall export tax and a surcharge on international telecommunications. Export taxes had been completely eliminated by 1985. Even with imposition of new taxes, tax revenues are unlikely to exceed 7.5% of GDP in 1987, one of the lowest tax efforts in the world.

The repeated recourse to taxing trade as opposed to taxes on income and wealth (indirect taxes accounted for 84% of total tax revenues in 1986) has been a chronic weakness of the Guatemalan tax system. For agriculture, this has meant a proportionally higher burden of taxation for commodities traditionally subject to export taxes, particularly coffee, bananas, and sugar. These taxes reduce profitability and are a direct disincentive to producers of export crops. However, the current export tax is expected to be phased out gradually over the next three years.

The inability to generate revenues has left the Guatemalan public sector one of the smallest in the world. Agriculture, which accounts for 25% of GDP, is supported by a Ministry of Agriculture which received only 3.2% of the national budget in 1986. Even worse, little of this funding is for investment expenditures, especially for rural infrastructure and research and extension services. Public investment in agriculture, taking into account all agencies of the public sector, amounted to a mere Q9.4 million in 1985.

3. Credit Policy

National interest rate policy is determined by the Monetary Board. Current ceilings on lending rates (14%) have reduced private bank willingness to finance more risky and high-cost lending activities, especially agriculture. Additionally, banking legislation is overly restrictive, and the extremely high collateral requirements (200% of the face value of a loan) have virtually eliminated small and medium farmers' access to commercial credit.

Traditionally, the Central Bank has utilized rediscount facilities to encourage investment in the agriculture sector; however, traditional export crops have absorbed a disproportionate share (over 90%) of these resources. Given the uncertain future of such traditional export crops as cotton and sugar and the need to promote greater agricultural diversification, GOG credit policies now should be redirected to assure farmer access to production and investment financing.

4. Export Policy

Although the Cerezo government has designated the nontraditional export sector as a high priority area for economic policy interventions, exporters continually complain about excessive bureaucratization and delay in processing export documentation. These delays are especially critical for perishable agricultural commodity exports. The previous existence of the Swiss firm SGS for checking prices of export and import shipments also was seen as a barrier to trade, despite its role in reducing contraband and tax evasion.

In spite of the limitations, progress in expanding exports thus far is extremely encouraging. One of the Cerezo government's early actions was the establishment of a National Export Council (CONAPEX), which has proved a useful vehicle for bringing exporters' problems and concerns to the policy decision level. CONAPEX is a mixed public-private sector organization whose members include the Economic Cabinet ministers and leaders of private sector organizations. A one-stop export window has been opened, reducing the time needed for an export license to one day. The GOG also is in the process of developing a national export strategy.

B. Sectoral Policies

With the Cerezo government's concentration on macroeconomic policies to stabilize the national economy in 1986, little attention was given to development of sectoral policies and programs to increase agricultural growth. The most important sectoral issues include:

1. Pricing Policies

Current agricultural pricing policies are directed at eventually eliminating all price controls. The government has substantially reduced the number of "controlled commodities" from 400 to 17, still including such basic market basket items as corn, beans, sugar, meat, flour, and vegetable oil. The policy of guaranteeing minimum prices to producers of basic grains has had the dual objective of ensuring adequate supplies of these products and protecting the income of small and medium farmers. However, a study of the impact of this policy undertaken in 1986 by ABT Associates (Inventory and Analysis of Guatemalan Economic Policies and the Relationship to Agriculture) concludes that while the variability of prices received by producers has tended to decline, wholesale and retail price variability has shown a tendency to increase. This result indicates that government policy has placed great emphasis on stabilizing producer prices but that little has been done to reduce the instability of consumer prices. The objectives of the floor price scheme as well as the entire approach for setting and administering floor prices by the National Institute of Agricultural Marketing (INDECA) need to be critically examined and the needed modifications implemented.

2. Domestic Food Security Vs. Agricultural Export Promotion

Guatemalan experience indicates that as non-traditional agricultural exports increase, production for domestic consumption decreases and vice versa. The GOG's stated policy is to support production of domestic consumption items (food security) and increase production and export of non-traditional crops simultaneously. While a laudable goal, its achievement will require a complex mix of new policies and incentives.

3. Promotion of Nontraditional Agricultural Exports

The Cerezo government also intends to promote export of nontraditional crops to increase foreign exchange earnings. This emphasis derives from projected poor global market prospects for traditional export crops in the years ahead and the high employment and income potential of fruits, vegetables, and ornamentals. The desirability of export diversification is undeniable; however, capturing shares of highly competitive perishable product markets entails considerable risk.

Small and medium farmers frequently are unfamiliar with nontraditional crops and their corresponding technology. Access to production and investment financing is necessary, and marketing infrastructure (packing, processing, transport, etc.) must be functional. These factors likely will constrain near-term growth in nontraditional crops. Since these crops provide less than 10% of total exports, government policy also should not neglect productivity and quality of traditional export crops while simultaneously promoting export diversification.

4. Agricultural Research

The Guatemalan government allocates a mere 0.4% of its annual budget to agricultural research, while historically most developing countries have budgeted at least 1.2% for this purpose. In addition to increasing its financial commitment to research, the government needs to clearly determine its research priorities in relation to basic grains, traditional export crops, and nontraditional export crops and the manner in which the private and public sectors should collaborate in research efforts.